History of Sciences in India Publications

CARAKA SAṂHITĀ

(A Scientific Synopsis)

By

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and

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FOREWORD

The present monograph of *Caraka Saṃhitā* is the first of a series of studies being published by the National Institute of Sciences of India which in 1959 constituted a Board for the compilation of a History of Sciences in India. Several bibliographies and monographs are now ready and their publication will be taken up as and when funds become available.

The work of the Board has now been taken over by the National Commission for the History of Sciences in India, inaugurated on January 15, 1965, by Shri M. C. Chagla, the Union Minister of Education.

This monograph offers a scientifically classified account of the contents of *Caraka Saṃhitā*, one of the two earliest and most renowned medical treatises of ancient India. Of these two treatises, *Caraka Saṃhitā* and *Suśruta Saṃhitā*, dealing respectively with medicine and surgery in the main, *Caraka* is admittedly the more ancient, though both have passed through repeated recensions by later and more advanced workers. The significance of these treatises lies in the rational basis of their concepts and discourse, and in their adoption of scientific terminology.

No definite date, acceptable to all, could however be assigned as to the composition of *Caraka Saṃhitā*, though its antiquity is not generally challenged. The extant *Caraka* is a redaction by Dṛḍhabala of the genuine *Caraka Saṃhitā*, which was itself a redaction by Caraka of the original work of Agniveśa, a disciple of Ātreya Punarvasu—a teacher in the University of Taxila during the age of Buddha. Caraka has been identified by some scholars with a physician of the same name in the court of the Indo-Scythian king Kaniṣka, who reigned in the second century A.D. From a consideration of internal and external evidence many authorities are of opinion that *Caraka Saṃhitā* is more or less a record or compilation of the deliberations of a congress of medical experts in ancient India, held in the early Buddhistic era. Hence, the progress of scientific knowledge in ancient India, as recorded in the medical treatise of Caraka, the most celebrated of the early Indian authors on the subject, may be compared with that of contemporary Greece, as represented by the works of Hippocrates. It has, therefore, been assumed by some western scholars that the medical knowledge, as expounded by Caraka, betrays some acquaintance with the works of that Greek author, though they have failed to advance any convincing proof.

This synoptic survey is well documented and its authors have taken good care of avoiding all attempts at improving upon Caraka's concepts and views in order to give them an air of modernity, which often unfortunately occurs in the case of many modern publications on ancient texts. This will help ensuring a proper assessment of the standard of scientific knowledge prevailing in India during the time of Caraka. The work will, therefore, serve as a record of reliable source materials for the compilation of a history of Indian medicine. A similar survey of the contents of *Suśruta Saṃhitā* is now in progress. Students of medicine and pharmacology, particularly those interested in research, will find the publication quite useful. Moreover, it will contribute in no small measure towards the preparation of scientific terminology in Indian languages, so urgently needed at the present moment.

The Convener desires to express on behalf of the retiring Board its appreciation of the meticulous care and scholarship with which Prof. P. Rây, with the assistance of Shri Hirendra Nath Gupta, has carried out the task. The monograph will be welcomed by a wide circle of interested readers.

I do confidently hope that the book will not fail to achieve the purpose it has in view.

D. M. Bose
Convener

February 4, 1965

PREFACE

In the present work a synoptic survey of the *Caraka Saṃhitā*, a well-known medical treatise of ancient India, has been made. The concepts, processes, methods, and materials, which occur in the treatise in a scattered manner, interspersed with an abundance of metaphysical disquisitions and with frequent reference to Vedic gods and hymns, have been co-ordinated and systematized from a scientific point of view. Most of the materials have been arranged in tabular forms for ready reference and rapid survey. Wherever necessary, and as far as possible, both English and Latin equivalents of all Sanskrit names and terms have been supplied to avoid ambiguities in their identification.

This is possibly the first attempt at rendering in English on a scientific basis the salient features of the views and observations of Caraka in a classified manner in order to make them accessible to all those English-speaking scholars, who may not have time and opportunities to go through the original Sanskrit text, or its English translations that are available. We would like to acknowledge here the valuable help we have received from these translations.

A proper assessment of the standard of scientific knowledge, particularly of medical science, acquired by the ancient Indians at a time prior to Galen, if not even much earlier as upheld by some scholars, is thus likely to be facilitated. Students of medicine and pharmacology, interested in research work, are also expected to find this publication particularly useful for their purpose.

In preparing this synopsis we have made use of the following editions of the text, and have consulted the available commentaries and translations.

1. *Jalpakalpataru*, the complete text of *Caraka Saṃhitā*, edited by Kaviraja Gangadhara with commentary; Vols. I-III. Second Edition; Calcutta, 1880-81.
2. *Caraka Saṃhitā*, complete text with Cakrapāṇi's commentary; edited by Harinātha Viśārada, Calcutta, 1892.
3. *Caraka Saṃhitā*, edited by Shree Gulabkunverba Ayurvedic Society, with introduction, commentary and indices including English, Hindi and Gujarati translations; Vols. I-VI. Jamnagar, 1949.
4. *Caraka Saṃhitā* (*Agniveśa Saṃhitā* as revised by Caraka and Dṛḍhabala), with *Āyurveda Dīpikā*, the commentary of Cakrapāṇi Datta; edited by Vaidya Jādavaji Trikamji Āchārya; third edition. Nirnaya Sagar Press, Bombay, 1941.

References in the present work to the chapters and verses in the original text follow the numberings given in the two last named publications.

For botanical and zoological names the following authoritative works served as the principal source of our information:

1. *Flora of British India* by J. B. Hooker, Vols. I-VII. London, 1872-1897.
2. *Pharmacographica Indica* by W. Dymock *et al.*, Vols. I-IV. London, Bombay, and Calcutta, 1893.
3. *Indian Medicinal Plants* by R. N. Chopra, Patna, 1932.
4. *The Fauna of British India* (including Ceylon, and Burma). Taylor and Francis; London, 1949.
5. *Sanskrit-English Dictionary* by M. Monier-Williams. Oxford, 1951.

In spite of all our precautions, we are quite conscious of the possibility of mistakes and errors, still occurring in this synopsis, and we shall be thankful to our readers for bringing them to our notice, if they happen to find any.

The following abbreviations have been used:

Sū.—Sūtrasthāna, Ni.—Nidānasthāna, Vi.—Vimānasthāna, Śā.—Śārīrasthāna, In.—Indriyasthāna, Ci.—Cikitsāsthāna, Ka.—Kalpasthāna, Si.—Siddhisthāna.

We take this opportunity of expressing our grateful thanks to Pandit N. C. Vedantatirtha of the Asiatic Society for his kindly going through the final proof and verifying the Sanskrit names and terms. Our thanks are also due to Mrs. S. Mitra, Sub-editor, National Institute of Sciences of India, for her ungrudging assistance in reading the proofs and in seeing the work through the press. We must also express our great appreciation for all facilities we have received from the authorities of the Asiatic Society for working in their library. Finally, we wish to acknowledge our thankfulness to Dr. D. M. Bose, Convener, for his keen interest in the work, carried out under the auspices of the National Institute of Siences of India. Above all, we consider it our bounden duty to offer our grateful thanks to Dr. A. C. Ukil who, as the President of the N.I.S.I., took the main initiative in organizing the scheme for compiling a History of Sciences in India and, as the first convener of its Board, evinced a great interest in our work with all possible encouragement and help.

We would also like to record here our appreciation of the patient co-operation of Sree Saraswaty Press Ltd., Calcutta, in bringing out this publication.

P. Rāy
H. N. Gupta

CONTENTS

I. AUTHORSHIP AND DATE OF COMPOSITION

The *Caraka Saṃhitā* (literally, treatise compiled by Caraka) is a Sanskrit work of great antiquity. Though primarily a compendium on "Āyurveda" (science of life), the philosophical concepts and views that form a considerable part of the *Caraka Saṃhitā*, serving, as it were, as the background of knowledge and practice of medicine in ancient India, must be considered an integral part of the work.

It is difficult, if not altogether impossible, to fix an exact date for its composition, or even to identify its author with any certainty. The only text available at present is a redaction by Dṛḍhabala of the 9th century A.D., who repeatedly mentioned in the body of the text that he merely edited an ancient work of this name, restoring and reconstructing some missing passages. In fact, a major portion of the last book of the Saṃhitā, 'Siddhisthāna', was added by him

The text gives a detailed account of how the *Caraka Saṃhitā* was originally composed. A conference of sages, meeting somewhere in the Himalayas, with the common object of alleviating human suffering and assuring a long, healthy and satisfying life to all, decided to take all steps to acquire the necessary knowledge for that purpose (*Sū.* Chap. 1). Later, one of these sages, Ātreya Punarvasu by name, requested six of his disciples to compile his teachings in writing (*Sū.* Chap. 2). The treatise of Agniveśa was considered the best, and the Saṃhitā of Agniveśa, revised by Caraka at some later date, formed the basis of Dṛḍhabala's edition. In fact, the major portion of *Caraka Saṃhitā* is presented in the form of questions and answers between the disciple Agniveśa and his teacher Ātreya.

There is no reason why this account, as far as the sequence of authorship is concerned, should not be accepted as correct. Cakrapāṇi Datta (11th century) in his commentary *Āyurvedadīpikā* on *Caraka Saṃhitā* practically asserted the identity of the latter with the original *Agniveśa Saṃhitā*, of which he seemed to have a full knowledge.

A great deal of difficulty is however encountered, when we try to identify Ātreya, Agniveśa, and Caraka with authors of the same names mentioned in Brāhmaṇical, Buddhistic, Chinese and Arabic literatures. Some of these names are found to occur as early as the Vedic period (2nd millenium B.C.) and some as late as the early centuries of the Christian era. It had been a common practice in India, for scholars of lesser fame to assume the titles of their more renowned predecessors in their particular fields with a view to fixing a stamp of authority on their own works. This fact introduces an element of uncertainty in any tentative chronology.

Most of the hymns of the fifth Maṇḍala of the *Ṛgveda* are attributed to Atri or to Ātreya. Again, Ātreya is the name of a famous medical teacher at Taxila, who, according to many Buddhistic and Chinese texts, was the preceptor of Jīvaka, the personal physician of Gautama Buddha (6th century B.C.). But the Ātreya of *Caraka Saṃhitā* is Ātreya Punarvasu, son of Candrabhāga (*Sū.* **13,** 99), whereas no Vedic text, Buddhistic source or Chinese work even mentions the title Punarvasu, or the parentage. The *Caraka Saṃhitā* itself makes a mention of yet another Ātreya (*Sū.* **1,** 9). Nowhere does it mention Taxila as Ātreya's place of residence. On the contrary, Punarvasu Ātreya is described as taking a walk in Kāmpilya, a city on the river Ganges (*Vi.* **3,** 3). Though the possibility of an excursion, or of migration, cannot be ruled out, there is nothing to support his identity with the teacher of Jīvaka, except the surname Ātreya, which is derived from the name Atri and means a descendant or follower of Atri. The identification of the author of *Caraka Saṃhitā* with the teacher at Taxila, made by Rudolf Hoernle (*Bower Manuscript*, Introduction, p. lviii), is not based therefore on any convincing evidence.

As for Agniveśa, the *Mahābhārata* refers to one Agniveśa as receiving the knowledge of *dhanurvidyā* (science of archery) from Bharadvāja (Ādiparva, slokas 5107 and 5108), whereas in the *Caraka Saṃhitā* Agniveśa is merely a disciple of Ātreya, who in his turn received his knowledge of Āyurveda also from one Bharadvāja (*Sū.* Chap. 1). Here again an identification would be hazardous.

The Chinese text of *Tripiṭaka* names one Tche lo kia (i.e., Caraka in Sanskrit) as a trusted physician in the court of the king Kaniṣka (c. 200 A.D.) in the north-west of India. This Caraka has been identified by Sylvain Lévi (Notes sur les Indo-Scythes in *J.A.* 1896, pp. 451-480) and by Hoernle (*Studies in the Medicine of Ancient India.* Part I, p. 9) with the author of the *Caraka Saṃhitā.* Here again, the identification is far from convincing; for, the name and title of Caraka (literally, a wanderer) has been found in many places and contexts in ancient Indian literature and is, in fact, associated with a particular school of medical knowledge. Reference to this is found in the *Black Yajurveda* (L. Renou, *Écoles Védique*, p. 129, 144, etc.). The *Taittirīya Saṃhitā,* known to be a work dating from more than a thousand years before the Christian era, also speaks about the Caraka School of medicine, though not in complimentary terms (*Taittirīya Saṃhitā,* VI, **4,** 9). It is more than possible that all subsequent Carakas, including the court-physician of Kaniṣka, were later exponents of this medical school, and centuries might have elapsed between any two holders of this name or title.

From passages in Cakrapāṇi Datta's *Āyurvedadīpikā* and in Śivadāsa Sena's commentary on the latter work (12th century A.D.), it appears that Patañjali, the famous grammarian (c. 2nd century B.C.) and a great alchemist, also revised *Caraka Saṃhitā.* If these are to be believed, Caraka cannot by any

stretch of imagination be placed in the court of Kaniṣka three or four centuries later.

It is therefore extremely difficult to give any definite date when Ātreya, Agniveśa or Caraka of our text might have flourished.

P. C. Rây (*History of Hindu Chemistry*, Vol. I, Introduction, pp. xiii—xxiii) after considering all internal and relevant evidence places the date of composition of *Caraka Saṃhitā* in the pre-Buddhistic period, i.e., before 600 B.C. His arguments are summarized below.

1. The text of Caraka is written in a haphazard and unsystematic style, intermingled with metaphysical disquisitions in sharp contrast with the precise style of works composed in the Buddhistic and later periods.

2. Vedic gods and *mantras* occur repeatedly, but references to Paurāṇic mythology and Buddhistic scriptures are conspicuous by their absence.

3. Caraka follows Vedic texts in counting the number of bones (360) in the human body, and in assuming the age of thirty as the limit of man's youth.

4. The prose style of Caraka resembles that of the Brāhmaṇas of the Vedas.

5. The treatise appears to be a record of the deliberations of Vedic *ṛṣis*, often giving their discussions in full (vide discourse on tastes, *Sū.* Chap. 26) and clearly mentions that it was composed shortly after those deliberations.

6. Patañjali (2nd century B.C.) is known to have made a redaction of the *Caraka Saṃhitā*.

Jean Filliozat (*La Doctrine classique de la Médicine Indienne*, pp. 17-19) also believes that significant references found in the text, the stage of development of the language employed, and careful comparison with other works of established dates, can give a more reliable idea of the date of composition than the names and dates of supposed authors. He, however, considers the style and composition definitely post-Vedic and having considerable affinity with the *Arthaśāstra* of Kauṭilya (3rd century B.C.). According to him, the *Caraka Saṃhitā* was composed in a period which antedates the Christian era, but not by a very long period. He gives the 2nd or 1st century B.C. as the most probable date.

Some workers (Filliozat, *loc. cit.*, and Gananath Sen, *Pratyakṣa Śārīram* Vol. I, 8-11) have identified Caraka with Patañjali, but the evidence in support of this view is not very convincing.

Winternitz (*History of Indian Literature*, part I) assigns 100 A.D. as the approximate date of *Caraka Saṃhitā*, and the Chronology Committee of the National Institute of Sciences of India (*Proceedings*, 1952) after considering all available evidence adopted this date for the text, which formed the basis of Dṛḍhabala's redaction.

II. SCOPE AND SUB-DIVISIONS OF THE TREATISE

Caraka Saṃhitā is primarily an exposition of Āyurveda, the science of life, defined as the science of the causes and symptoms of diseases, of their medication, and of the maintenance of health (*Sū.* **1**, 23). It also deals with the origin of medical science, the fundamental causes of conception and birth, and of physical deformities. According to Caraka, life is everlasting and without any beginning. Āyurveda, the science of life, has also been always in existence (*Sū.* **30**, 27).

The treatise contains a detailed classification and nomenclature of diseases—their etiology, diagnosis, prognosis and treatment. Embryology, obstetrics, anatomy, physiology, personal hygiene, sanitation, training and duties of physicians, and other theoretical and practical aspects of medicine are also treated in some detail. Interspersed in the text are passages which give valuable indications of the cosmological, biological, physicochemical, metaphysical, ethical and philosophical ideas prevalent in India at the time.

According to Caraka, Āyurveda has got eight branches (*Sū.* **30,** 30) :

(1) *Kāyacikitsā,* therapeutics.

(2) *Śalakya,* the science of the special diseases of the eye, ear, nose, mouth, throat, etc.

(3) *Śalyāpahartṛka,* surgery.

(4) *Viṣagaravairodhikapraśamana,* toxicology.

(5) *Bhūtavidyā,* psychiatric knowledge.

(6) *Kaumārabhṛtya,* pediatrics.

(7) *Rasāyana,* rejuvenation.

(8) *Vājīkaraṇa,* knowledge for increasing virility.

The *Caraka Saṃhitā* is an exhaustive compendium on therapeutic medicine and claims to contain all that is to be known in this branch (*Si.* **12,** 53), though it contains sections devoted to the other seven branches.

The scope of the treatise is stated to be limited to ten specific topics (*Sū.* **30,** 32):

(*i*) *Śarīra*, anatomy.

(*ii*) *Vṛtti*, physiology.

(*iii*) *Hetu*, etiology.

(*iv*) *Vyādhi*, pathology.

(*v*) *Karma*, treatment.

(*vi*) *Kārya*, objectives.

(*vii*) *Kāla*, the influence of age and seasons.

(*viii*) *Kartṛ*, physicians.

(*ix*) *Karaṇa*, medicines and appliances.

(*x*) *Vidhiviniścaya*, procedure and sequence.

For a discussion of the above topics the treatise is divided into eight sections (*Sū.* **30**, 35):

(1) *Sūtrasthāna* deals with general principles, philosophy, etc.
(2) *Nidānasthāna* deals with causes of diseases.
(3) *Vimānasthāna* deals with taste, nourishment, general pathology, etc.
(4) *Śārīrasthāna* deals with anatomy and embryology.
(5) *Indriyasthāna* deals with diagnosis and prognosis.
(6) *Cikitsāsthāna* deals with treatment of diseases.
(7) *Kalpasthāna* deals with pharmacy.
(8) *Siddhisthāna* deals with cure of diseases.

In all, there are one hundred and fifty chapters on specific topics. There are at places some later revisions or interpolations, as repeatedly admitted by the redactor at the end of each and every chapter. In fact, Dṛḍhabala states that he had to rewrite and complete the last section *Siddhisthāna* from the materials available to him (*Si.* **12**, 55). The twelfth or last chapter of this section was not available at all and had to be restored by him in order to complete the treatise (*Si.* **12**, last *śloka*).

III. CONCEPTS AND THEORIES

(*a*) Man and Matter : Aim of Medical Science

Man, according to Caraka, is an epitome of the macrocosm (*Śā.* **5**, 3). Following the philosophical doctrines of Sāṃkhya and Vedānta, Caraka holds (*Śā.* Chap. 5) that the individual is a replica of the universal; both the external world and the individual man are the manifestations of one and the same eternal spirit (*Brahman*). In other words, spirit and matter are not two separate entities but one integral whole. Both man and the visible world are composed of six elements. *Pṛthvī* (earth), *ap* (water or liquid), *tejas* (fire), *vāyu* (air) and *ākāśa* (ether) are common to both. The sixth element, the spirit or self in the individual, is equivalent to *Brahman* in the universe (*Śā.* **5**, 4). *Pṛthvī* confers hardness, *ap* confers fluid constituents, *tejas* the body-heat, *vāyu* the vital breath, *ākāśa* the bodily orifices, and *Brahman* the spirit (*Śā.* **5**, 5). Similar to the office of the creator in the universe is the might of the individual soul in man. He also creates life by the act of impregnation (*Śā.* **5**, 6). Like the diverse things present in the universe, the different entities comprising the human being are too numerous to count (*Śā.* **5**, 4). There is in man as much diversity as in the world outside (*Śā.* **5**, 3).

The human body is made up of innumerable minute parts which, because of their extreme fineness, are invisible and not amenable to sense perception. These may be compared to the cells of the body, as we now understand (*Śā.* **7**, 17).

According to Caraka there are four criteria of truth: (*a*) authoritative

testimony, (*b*) direct observation, (*c*) logical assumption, (*d*) inference. Anything contrary to reason is to be rejected as untruth, (*Sū.* **11**, 17, 26-28). To this might also be added (*e*) tradition and (*f*) analogy (*Vi.* **8**, 33).

The realization of truth or perfect knowledge by man arises from the sense of equality, i.e., from the perception of his own self as identified with everything else in the universe (*Śā.* **5**, 7), or from the perception of the unity of the whole world (*Śā.* **5**, 8). The purpose of life is the attainment of liberation, or emancipation of the soul, which consists in the understanding and realization of truth, leading to eternal peace. This cannot be achieved merely by rituals, ceremonial practices, keeping up the sacred fire, invocations, mendicancy, austerities, asceticism, etc. (*Śā.* **5**, 10).

A sound mind and a sound body were regarded as prerequisites for the beatific experience of the Divine or *Brahman* in man. The aim and object of the study and pursuit of medical science with this end in view was thus defined in the *Caraka Saṃhitā* (*Śā.* **5**, 10). For, it serves as an aid to the fulfilment of fourfold purposes of life, namely, *dharma* (performance of duties), *artha* (acquisition of wealth), *kāma* (satisfaction of desires), and *mokṣa* (salvation or self-realization) (*Sū.* **1**, 15-16).

Life, according to Caraka, can be divided into four types: *sukhamāyuḥ* (happy life) is a life not affected by physical or mental diseases; *asukhamāyuḥ* (unhappy life) is the opposite of this; *hitamāyuḥ* (good life) is a virtuous life devoted to the service and welfare of others; *ahitamāyuḥ* (bad life) is the opposite of this. The object of the science of life is to provide information about what tends to develop all these four kinds of life and to determine their span (*Sū.* **30**, 23-24).

All matter is composed of the five *mahābhūtas* (gross elements): *ākāśa* (vacuum or ether), *vāyu* (gas or air), *tejas* (radiant energy), *ap* (liquid or water) and *pṛthvī* (solid or earth substance) (*Śā.* **1**, 27). The gross *bhūtas* show five subtile characteristics: non-resistance, motion, heat, fluidity and hardness. *Ākāśa* has the sole quality of non-resistance. In each succeeding element there is found the preceding element or elements with their characteristic properties, as well as its own specific quality (*Śā.* **1**, 27-29).

Living things are composed of the *mahābhūtas* and three other constituents: *avyakta* (*ātman* or unmanifest self), *buddhi* (intelligence) and *ahaṃkāra* (ego). Thus they have the eight-fold *prakṛti* (natural characteristics) (*Śā.* **1**, 63). The ego is made up of action, the consequences of action, reincarnation and memory, and is independent of the physical body. It can exist without the latter (*Śā.* **1**, 52).

The five *mahābhūtas*, together with the spirit, mind, time and space, constitute the totality of all substances (*Sū.* **1**, 48). They are perceptible to the senses or to the mind (*Śū.* **1**, 62). But they cannot exist singly or without purpose; being ephemeral by nature they cannot escape destruction (*Śā.* **1**, 58).

Of the substances, those which possess sense-organs are called animate, and those which do not are called inanimate. The *guṇas* represent the sense properties of colour, taste, smell, touch, and hearing, besides the mechanical and other properties which all elements have in common (*Sū.* **1**, 48-50).

All senses are mere variations of the five *mahābhūtas*, but each sense partakes of one *mahābhūta* in a preponderating degree and possesses a special capacity for grasping that particular *mahābhūta* (*Sū.* **8**, 14).

Conscious perception arises from the fusion of the *ātman*, mind, senses and sense-objects (*Śā.* **1**, 34). This fusion cannot be achieved by accident; an agent is necessary (*Śā.* **1**, 44). The ultimate source of consciousness and knowledge is the *Puruṣa* or transcendent self (*Śā.* **1**, 41). The *Puruṣa* has no beginning in time; it is not manifest to the senses, cannot be realized except by inference and does not come under any known category (*Śā.* **1**, 60 and 62). It is everlasting, all-pervading and changeless (*Śā.* **1**, 61). Had there been no *Puruṣa* there would have been neither good nor evil, no knowledge, no doer and no knower (*Śā.* **1**, 39). All these would be causeless. Neither could there be any awareness of these, nor would they serve any purpose by their existence (*Śā.* **1**, 42). There would have been no dissolution nor creation, no birth nor death, no continuity of life, no consciousness nor perception, no pleasure nor pain, no dynamic nor static condition, no science nor scripture, no bondage nor liberation, if there were no *Puruṣa* (*Śā.* **1**, 38-41).

Caraka holds that life results from the combination of the body, the senses, the mind and the self (*ātman*), and that it rests on the body, the mind and the self, as on a tripod. If, therefore, any of these supports be missing, life ceases to exist (*Sū.* **1**, 42, 46). As already stated, transcendent self (*paraḥ ātmā*) is different from manifest self which participates in the union of the body, mind and the senses (*Sū.* **1**, 41, 45, 47, 55, 56).

(*b*) Conception and Birth

There are four different origins of living beings: womb, egg, sweat, and the seed. Each of these classes shows countless varieties. The viviparous and oviparous embryos assume the shape of such wombs as they find themselves in, though they originate from a complex of causative factors (*Śā.* **3**, 16).

Conception occurs inside the womb by the union of semen, ovum and the spirit (*Śā.* **4**, 5). By the physical act of mating union takes place between the semen (sperm cell) and the female ovum (germ cell); then the spirit, associated with the mind, descends and enters into the zygote formed, and a new embryonic life is created (*Śā.* **3**, 2). If the spirit does not descend, no life is created and conception fails to occur (*Śā.* **3**, 11). The conscious spirit gravitates to the needed ingredients; it creates its own body by gathering the elements together—first the *ākāśa* (ether) alone, then in due order the other *bhūtas*. The process is completed in an infinitely small fraction of time (*Śā.* **4**, 8).

The conception of all living beings originates from the combined contribution of the mother, the father, the spirit, the essence of the elemental properties and nourishment (*Śā.* **3**, 3). It is the mind which yokes the living organism to the spirit and holds the senses together. With the departure of the mind, the organism becomes a lifeless matter (*Śā.* **3**, 13).

The spirit in the embryo is the embodied soul. The soul is eternal, diseaseless, decayless, ageless, deathless, indivisible, indestructible, immovable, omniform, omnifunctional, immutable, invisible and infinite (*Śā.* **3**, 8).

Hence, there is no birth in the true sense. What we call birth is the mere transition of the already existing sperm, ovum and spirit to the new status of embryo after their union (*Śā.* **3**, 8). The spirit is the eternal self and passes through a succession of forms, having no beginning. Life and the spirit, both are without beginning and neither is antecedent to the other (*Śā.* **1**, 82).

(*c*) Heredity and Embryonic Growth

Caraka assumes that the sperm-cell (*bīja*) of the male parent contains minute elements derived from each of his organs and tissues (*Śā.* **4**, 7). A rational explanation is attempted of the fact that offsprings do not necessarily reproduce every feature of the father, and even a particular womb does not produce identical features in every embryo conceived in it.

A human womb invariably produces a human child in the manner of a wax-mould (*Śā.* **3**, 16), but children differ in many important respects from their parents (*Śā.* **3**, 17). They may be males or females, twins, multiplets (*Śā.* **2**, 11), possessed of sexual abnormalities (*Śā.* **2**, 31) and may have individual characteristics and deformities (*Śā.* **2**, 28-29).

When the sperm (*śukra*) is dominant, a male foetus is formed, but a female is produced when the female germ (*śoṇita*) predominates (*Śā.* **2**, 12). If the united sperm-ovum gets divided into two or more fragments, a corresponding number of new lives are created (*Śā.* **2**, 14). In this case a male is formed from a fragment rich in sperm and female from one rich in ovum (*Śā.* **2**, 13). Non-identical twins or multiplets result from unequal fragments (*Śā.* **2**, 16). Indeterminate sex and abnormalities occur when neither the sperm nor the ovum predominates, or when they are diseased and weak (*Śā.* **2**, 18-21).

Caraka also attempts to explain why congenital deformities of the parents, or constitutional diseases contracted by them in later life, are not necessarily inherited. According to Ātreya's view given in the text (*Śā.* **3**, 15), the parental *bīja* (seed or germ-plasm) contains the whole parental organism in a potential or miniature form but is independent of the parents' developed organs, and is not necessarily affected by their idiosyncrasies or deformities. It is the combination and characters of the constituent elements of the parental *bīja*, which is an organic entity independent of the developed parental body and its organs, that determine the physiological features and predispositions

of the embryo. Congenital defects like blindness, deafness, dumbness, stammering, lameness, deformity of the spinal column or the bony framework, as well as constitutional diseases like madness, leprosy or chronic skin diseases in the parent, do not necessarily produce corresponding deformities or infirmities in the offspring. Only when an element in the parental *bīja*, representing a particular organ or tissue accidentally (*daiva*) happens to be defective, undeveloped, or abnormal, the corresponding organ or tissue of the offspring will be similarly affected. Again when constitutional diseases, acquired in later life, are found to be inherited, it is supposed that the *bīja* has been infected or affected in that particular instance. Leprosy, for example, is transmitted to the offspring only when the germ-plasm is actually infected with the disease by reason of the leprosy of the parent (*Śā.* **3**, 15). This mutual interaction of the germ-plasm and the somatic tissues seems to be a distinctive feature of Ātreya's hypothesis. The continued identity of the germ-plasm from generation to generation, affected by somatic processes only by accident or infection, follows logically from this hypothesis.

Hence offsprings differ from their parents in those tissues and organs whose original representatives in the germ-plasm have been affected by causative factors. The sex, stature and complexion of the offspring is also stated to be affected by the influence of abundant or defective nutrition and by the constituents of foods taken by the parents (*Śā.* **3**, 5).

The elements that contribute to the general features of the new-born child are: (1) the mother's blood, (2) the father's semen, and (3) the *karma* of the individual. Its mental traits are determined by the state of the mind of the individual in its previous birth, and will be impure and dull if it was an animal in the previous birth (*Śā.* **2**, 27).

The embryo inherits its skin, blood, flesh, fat, heart, liver, lungs, spleen, kidneys, stomach, intestines, etc. from its mother (*Śā.* **3**, 6); its bones, teeth, veins, tendons, ligaments, arteries, semen, hair and nails from its father (*Śā.* **3**, 7); its mind, senses, consciousness, ego, memory and life-span from the spirit (*Śā.* **3**, 10); its clarity of senses, quality of voice, appetite and vitality from parental concordance (*Śā.* **3**, 11); its visible shape, vigour, sense of contentment and energy from nourishment (*Śā.* **3**, 12).

The embryo is a shapeless jelly (*kheṭabhūta*) in the first month (*Śā.* **4**, 9) and a tumour-like or fleshy shape in the second. By this time there is the first indication of the future sex of the embryo (*Śā.* **4**, 10). In the third month the limbs and sense-organs are no longer latent but emerge as separate entities (*Śā.* **4**, 11). In the fourth month, the foetus is stabilized and the mother puts on weight (*Śā.* **4**, 20). It grows in flesh and blood in the fifth month and in strength and colour in the sixth, at the expense of the mother who becomes emaciated, weak and pale (*Śā.* **4**, 21-22). In the seventh month there is an all-round development and in the eighth there is a continuous flow of

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vitality to and from the mother (*Śā.* **4**, 23-24). It continues to grow by nourishment until delivery, which should occur in the ninth or tenth month (*Śā.* **4**, 25). Any factor which upsets the proper sequence leads to an abnormal period of gestation, or destruction of the foetus (*Śā.* **4**, 59).

The first stage of foetal development has been assumed differently by different experts in the discourse given in the *Caraka Saṃhitā* (*Śā.* **6**, 21).

The child in the womb has its limbs folded, its head erect and its back towards the mother's abdomen (*Śā.* **6**, 22). Its heart is connected with the mother's heart through the umbilical cord and the placenta; the latter is flooded with blood by the pulsating arteries of the mother. The mother's blood transmits nourishment, vitality, and complexion. The skin-pores of the foetus also absorb the nourishment (*Śā.* **6**, 23). The two minds (of the mother and the foetus) have an intimate psychical connection (*Śā.* **4**, 15/2). The foetus may be destroyed, deformed or may suffer psychic injuries due to physical and emotional disturbance of the mother (*Śā.* **4**, 15-30). Faulty diet and habits, as well as mental shocks, a comprehensive list of which is given in the text, also contribute to this end (*Śā.* **8**, 21).

Instructions are also given by Caraka for the proper care of the pregnant woman; these include specified diet, prophylactic treatment and maintenance of emotional harmony (*Śā.* **8**, 32/1). Such treatments ensure good health, vitality and a pliable womb for the mother, and a soft placenta at the time of delivery (*Śā.* **8**, 32).

The text describes in some detail the symptoms of recent and advanced pregnancy (*Śā.* **2**, 22; **4**, 16), and the pre-indications of male and female births (*Śā.* **2**, 24-25). Methods of ensuring the birth of male offspring (*Śā.* **8**, 11-19) are also indicated.

The signs of imminent delivery (*Śā.* **8**, 36), the requirements of an well-appointed maternity house (*Śā.* **8**, 33-35), methods of minimizing labour pains (*Śā.* **8**, 38-39), proper handling and help in delivery (*Śā.* **8**, 40-41), and post-natal care of the child (*Śā.* **8**, 42-45) and its mother (*Śā.* **8**, 48-49) are also described in detail.

(*d*) Humoral Theory (Concept of the Origin of Diseases)

The well-known humoral theory, which postulates the existence of three humors in the human body—named *vāyu* (or *vāta*), *pitta* and *kapha*, is built upon the premise that apart from a few exceptions all human beings have a predominance of one of the three humors from the very moment of conception (*Sū.* **7**, 39). The few exceptions are equipoised, enjoying perfect health; the rest can be classified according to the continual predominance of a particular humor in their system. The inherent imbalance makes them always susceptible to diseases (*Sū.* **7**, 40). The types can be diagnosed by their physical characteristics (*Vi.* **8**, 96-99). But diseases actually occur when

the humors are provoked (*Vi.* **6**, 13). In normal health the three humors are balanced (*Vi.* **6**, 13/2). But if a person of the *vāta* type indulges in foods and acts which provoke that humor, the *vāta* is aggravated and afflicts the person's body with physical and mental disorders of the *vāta* type and impairs his strength, health, complexion and span of life (*Vi.* **6**, 16/1). The same consequences are in store for the person of the *pitta* type when that humor is provoked, and same also holds good for the third humor, *kapha* (*Vi.* **6**, 18/1). The individual types are much less affected and may in fact be benefited by indulging in foods and acts which provoke the other two humors (*Vi.* **6**, 13 -18; *Sū.* Chapter 20).

All pathological conditions of the mind and the body, and even their degrees of severity, are direct results of morbid and aggravated humors (*Vi.* **6**, 4-9). The morbidity of one humor can be accompanied by that of a second or by both the others, giving rise to a simultaneous discordance of two or three humors (*Vi.* **6**, 11). Thus permutations and combinations of three humors in different degrees may give rise to numerous pathological symptoms (*Vi.* chapter 6). According to the severity of the provoked humors, all diseases can be classified as incurable, major, or minor (*Vi.* chapter 7). It is the physician's duty to try to correct as far as it lies in his power the specific imbalances and to relieve the aggravated humors by proper diet and treatment for each class and type of diseases. Some portions of the *Sūtrasthāna* (Chap. 12, 16, 17, 18, 19, 20, 22, 24, 27), practically the entire *Cikitsāsthāna* and *Nidānasthāna*, and portions of the other *sthānas* are devoted to the descriptions of various diseases, their classifications according to humors, as well as their dietetic and medicinal treatments.

The three humors *vāyu*, *pitta* and *kapha*, when abnormal (*prakupita*), and the various waste products of the body tend to weaken or destroy the body. These are called *malas*. So long as they remain in proper measure they do not pollute or weaken the body or give rise to diseases. Within their proper measure even the *malas* are called *dhātus* (body-constituents). *Mala dhātus* and *prasāda dhātus* (body-constituents which specifically help sustenance and growth) thus co-operate in maintaining the body (*Sū.* **28**, 3).

The places in the body, which are usually affected by *vāta*, *pitta* and *kapha* in their abnormal (*prakupita*) condition, as described by Caraka, are: bladder, rectum, waist, bones of the legs, and specially the smaller intestine (*pakvāśaya*) for *vāta* affection; sweat, blood, particularly the stomach, for *pitta* affection; head, neck, the joints, stomach, fat and particularly the chest for *kapha* affection (*Sū.* **20**, 8).

The physician should find out not only which *doṣa* (humor) is abnormal, but also which qualities of that *doṣa* have run to excess. The nature of the disturbance of a *doṣa* (humor) is determined by the nature of the disturbance of its qualities involved (*Ni.* **1**, 13).

(*e*) *Vāyu* AND ITS ROLE IN HUMAN SYSTEM AND IN NATURE (*Sū.* **12**, 8)

According to Caraka *vāyu* is that which keeps the machine of the body at work. It is the impelling force for all bodily efforts, and sets in motion the sense organs and the mind; it regulates the body elements, maintains equilibrium in the body, stimulates digestion, eliminates harmful matter and waste products, and gives shape to the foetus. It manifests itself in five forms: *prāna*, *udāna*, *samāna*, *vyāna*, and *apāna*. Their seats in different parts of the body and their physiological effects are also specified (*Ci.* **28**, 4-9).

When activated in an abnormal state *vāyu* may create diseases of the body, cause mental depression, affect the sense organs, destroy or deform the foetus, or increase the period of gestation.

In nature *vāyu* serves as an envelope for the earth, supports combustion, causes the formation of clouds, the condensation and precipitation of water as rain, and gives rise to streams. It helps growth of plants, flowers, fruits and crops, and maintains the division of seasons.

Vāyu in an abnormal state in nature is identified with storms and winds, causing damage to matter and life.

The properties of *vāyu* has been described by Caraka as dry (*rukṣa*), cold (*śīta*), light (*laghu*), subtle (*sūkṣma*), moving (*cala*), scattering everything in different directions (*viśada*) and rough (*khara*). *Vāyu* has been identified with the continuity of life (*Sū.* **1**, 59; **12**, 8).

(*f*) MEMORY AND DREAM

Caraka has enumerated eight causes of memory (*Śā.* **1**, 148-149):

(*a*) Impressions, similar and dissimilar; (*b*) co-ordination of mind; (*c*) practice; (*d*) knowledge; (*e*) recollection; (*f*, *g*, & *h*) repetition of sight, hearing, and perception

Dreams have been classified by Caraka into seven types, based on (*In.* **5**, 27-46):

(*a*) Visual impression; (*b*) auditory impression; (*c*) experience; (*d*) inner desires; (*e*) fancy; (*f*) premonition; (*g*) morbid humors.

An account of the different varieties of dreams arising from morbid humors has been given, particularly those foreboding death.

(*g*) ETHICS IN CARAKA

Caraka advances a very catholic and commonsense view of *karma* and rebirth differing from those of other Indian philosophers. The laws of *karma* are not considered immutable by Caraka who allows a limited amount of freedom to human efforts in arresting the fruits of all ordinary non-moral actions. Only the effects of very good or bad moral actions cannot be thus modified or averted by human efforts. The fruits of all non-moral or ordinary actions can be averted by the exercise of human intelligence,

wisdom and well-balanced conduct, and by the administration of proper medicine and the like. Caraka therefore holds that right conduct (*sadvṛtta*) can help in the preservation of physical and mental health and in securing sense-control (*indriyavijaya*) (*Vi.* **3**, 28-38; *Sū.* **8**, 17).

Caraka recognizes that there are three primary desires serving as the springs or causes of all our actions. These are: desire for self-preservation (*prāṇaiṣaṇā*), desire for wealth (*dhanaiṣaṇā*), and a desire for a happy future life (*paralokaiṣaṇā*) (*Sū.* **11**, 3, 7, 8, 13).

IV. PHYSIOLOGICAL PROCESSES

(*a*) Digestion and Metabolism

Production of heat in the body is said to be the basis of life process. The life-span, vital breath, vital essence, body-heat, muscular strength, energy, lustre, etc., all are dependent upon the production of heat inside the organism. When the body-heat becomes abnormal, disease results; when it is suppressed or dies out, there is an end of life (*Ci.* **15**, 3-4). In the *Caraka Saṃhitā* the word *agni* has been used for body-heat; its literal meaning is fire. This is related closely to metabolic processes (*Vi.* **6**, 12).

This production of body-heat depends upon the intake of food. Food nourishes the body elements, vital essence, strength, etc.; but the nutrient action of food is a result of gastric digestion. If the process of digestion is hampered, food fails to nourish (*Ci.* **15**, 5).

Ingested food and drink pass into the stomach and are broken up and softened by the digestive fluid in the stomach. During this process, the food is transformed into a sweet, frothy mucus-like fluid. As the digestive process continues, it becomes acidic and, issuing out of the stomach, excites the secretion of thin bile (*Ci.* **15**, 8-10). Ultimately it is converted into assimilable nutritive fluid and also some waste products. Excretions of the body are formed from the waste products (*Sū.* **28**, 4/7). The process of digestion ends in the large intestines where the remnants are converted into lumps of stool (*Ci.* **15**, 11).

The nutritive fluid formed is converted into blood, flesh, fat, bone-marrow, semen, ligaments and clear fluid (serum ?), as well as the sensory faculties (*Sū.* **28**, 4/2). The body elements are replenished by the food and are able to maintain the body in a proper condition by gathering the necessary ingredients from food. This replenishment and maintenance take place when the various metabolic processes are proceeding without interruption, and the *srotāṃsi* (movements of body-fluids) are unimpeded in their proper channels. The nutritive fluid then pervades the whole body (*Sū.* **28**, 3).

The body channels, constituting the means of passage of the nutritive fluids from food, feed the various body elements in the requisite measure

and with the required constituents (*Sū.* **28**, 5/1). The requirements of the body according to size, condition and age determine the quantity of nutritive fluid formed from food, thus maintaining the balance of the body elements (*Sū.* **28**, 4/3 and 4/4).

From the waste products of digestion are formed: sweat, urine and stools; the morbid forms of the three body-humors; the excretions of the eyes, ears, nose, mouth, hair-follicles and female parts; the hairs of the head, face and body; and the nails. The quantities produced depend on the age, size and condition of the body (*Sū.* **28**, 4/1 and 4/4).

(*b*) Movement of Fluids through Channels of the Human Body

Caraka states that there are innumerable *srotāṃsi* or fluid currents through numerous channels in the human body. They serve to convey nutrients and healing matters where needed, and to carry away decaying and harmful products formed. These *srotas* convey the products of the body elements—blood, flesh, fat, bone, marrow, nutritional juices, semen and life-breath. These body elements cannot develop or decay independently of the *srotas* (*Vi.* **5**, 4).

There is as much functional diversity of these channel systems as in the structural composition of the rest of the human body, but the most important among them are those which carry life-breath, water, food, nutritive juices, blood, flesh, fat, bone-matter, marrow, semen, urine, stool and sweat. The three humors—*vāta*, *pitta* and *kapha*—diffuse throughout the entire body with the help of all these channel systems. The supersensory essences of man are independent of the channels; the entire sentient body is, in fact, both the vehicle and the field of their operation (*Vi.* **5**, 3 and 6).

The channels are normally in the form of elongated vessels, extensive ducts or convoluted tubes. In dimension, they vary from large to very fine ones (*Vi.* **5**, 25). The various types found in the body are: (*a*) *sirā* or vein, (*b*) *dhamanī* or artery, (*c*) *rasāyanya* or ducts, (*d*) *nāḍī* or tube, (*e*) *panthā* or tract, (*f*) *mārga* or passage, (*g*) *śarīracchidra* or body-orifice, (*h*) *saṃvṛtāsaṃvṛta* (vessel open at one end only), (*i*) *sthāna* or container, (*j*) *āśaya* or bladder, (*k*) *niketa* or closed container. Some of the channel systems are not visible to the naked eye (*Vi.* **5**, 9).

The *srotāṃsi* have specified centres and areas of operation. Such areas develop characteristic symptoms, if any of the *srotas* systems is vitiated or obstructed. (*Vi.* **5**, 6). This obstruction is not limited to the stationary and mobile body-channels of the specified area, but may spread to the other *srotas* systems. If, however, any one of the three humors is affected, the entire body is also affected (*Vi.* **5**, 9).

In the heart are rooted the ten main channels that carry the vital essence through the whole length and breadth of the body. These main channels

are either *dhamanīs* which pulsate, or *srotāṃsi* which carry nutritive fluids, or *sirā* (*Sū.* **30**, 8 and 12). Heart is regarded as the only seat of consciousness (*Śā.* **7**, 8-9), while *prāṇa* (the vital current) and all the senses emanate from the head (*Si.* **9**, 4).

The heart is the source of the life-breath *srotas*; the bronchial area is the source of the water *srotas*; the region of the stomach, particularly the left side, is the source of the food *srotas*; the heart with its ten main channels is the source of the *srotas* of nutrition; the liver and spleen are the source of the blood *srotas;* the muscles and skin are the source of the flesh *srotas*; the kidneys and the omentum are the source of the fat *srotas*; the body fat is the source of the bone-matter *srotas*; the bones and joints, of the marrow *srotas*; the testes and phallus, of the semen *srotas*; the kidneys and the bladder, of the urine *srotas*; the colon and the rectum, of the stool *srotas*; and the fat and hair-follicles, of the sweat *srotas* (*Vi.* **5**, 8).

When the *srotāṃsi* are in an abnormal state, there is an increased or decreased flow of the fluids they carry; the channels also become knotted and there is diversion of flow to abnormal channels. The treatment of such conditions consists of treating the various parts of the body which have been recognized as the specific centres of the various *srotāṃsi* (*Vi.* **5**, 24, 26-28).

(*c*) TASTES

The taste is an intrinsic property of material substances. There are only six basic tastes—sweet, acid, saline, pungent, bitter and astringent (*Sū.* **26**, 9). These six categories of taste, according to Caraka, emerge in different substances from the collocation in unequal proportions (preponderance or paucity) of the five *mahābhūtas* or primal elements. The same view is held regarding the origin of colour (*Sū.* **26**, 40/2).

The sensation, which is immediately perceived on contact of the substance proper with the tongue, is called 'taste'. Any sensation subsequent thereto is called the after-taste or latent taste. The physiological action of all substances depends upon the taste and also its after-taste, if any (*Sū.* **26**, 28, 43).

All tastes are conveyed through the medium of water which, according to Caraka, sustains all animal and plant life (*Sū.* **26**, 30). But water has a taste which is imperceptible. Palatability, or otherwise, of a substance is a matter of personal idiosyncracy, while its beneficial or harmful action depends on factors, like its composition, purity and the time and clime of its use (*Sū.* **26**, 9).

Single or pure tastes are to be found in many substances, but they occur mostly in combinations. For example, alkaline substances possess a complex taste, with saline and pungent tastes predominating. By the presence of two, three, four, five or all six tastes in the same substance, fifty-seven mixed tastes may arise, which with the six simple tastes make sixty-three different tastes (*Sū.* **26**, 9 and 24).

In common with the bodily humors, tastes have the inherent propertie of heaviness, lightness, coldness, heat, oiliness and dryness. (*Sū.* **26**, 9). A knowledge of the tastes of different substances is therefore essential in th treatment of diseases which are caused by the abnormalities of the body humor (*Sū.* **26**, 27). In fact, each and every substance, due to the inherent property o taste, may be put to medicinal use, with due consideration to the appropriat time of its application, its quantity, purity, combination with other substances physical properties and dosage (*Sū.* **26**, 12, 29).

The text describes in detail the beneficial physiological actions of th substances belonging to the basic taste groups, and the pathological symptom produced by their exclusive indulgence or over-indulgence. Thus, with th taste as guide, all edible and medicinal substances, taken in the right measur and manner, are invariably beneficial (*Sū.* **26**, 43-44).

V. HEALTH AND LONGEVITY

(*a*) Personal Hygiene

Caraka enjoins constant vigilance and a regular daily and season routine of prophylactic measures for the maintenance of health and vigou (*Sū.* **5**, 103). The use of collyrium at night and of eye-salve and eye-drop after exposure to glare are recommended for good eyesight. Smoking pipes and cigars, containing medicinal herbs, at regular intervals everyday said to prevent neuralgic pains and increase mental alertness (*Sū.* **5**, 15-27 but many complications and even permanent injury may be caused by uncon trolled smoking, especially in an exhausted or intoxicated state (*Sū.* **5**, 38 45).

The application of medicated oil to the nostrils at prescribed times retar senility and maintains the acuteness of sight, smell and hearing (*Sū.* **5**, 48-70

Brushing the teeth twice a day with partly crushed green twigs of certai plants, and scraping the tongue with shaped metallic scrapers, ensure stron teeth, sweet breath and a good appetite. Medicated gargles keep the faci muscles young, sharpen taste, increase appetite, and prevent dental deca (*Sū.* **5**, 71-80).

Daily massage of the scalp and hair with approved vegetable oils preven insomnia, baldness, grey hairs and sagging of the face muscles (*Sū.* **5**, 81-83

Draining the ear-passage with oil prevents deafness and other affections the ear (*Sū.* **5**, 84).

Daily massage of the body prevents excessive sweating, removes offensi body-odour and gives suppleness to muscles and tendons (*Sū.* **5**, 90-93 Massaging with oils acts as a tonic to the skin, induces tolerance to physic hardship, makes the contours of the body firm and the skin glossy (*Sū.* **5**, 8 86).

Bathing promotes vitality, physical stamina, longevity and removes fatigue (*Sū.* **5**, 94).

The feet and private parts are to be kept scrupulously clean, and the hair, beard and nails regularly trimmed (*Sū.* **5**, 98).

The use of clean apparel, foot-wear and umbrellas promotes mental as well as physical comfort, and ensures good health (*Sū.* **5**, 95, 100-101).

Regulated physical exercise aids digestion and increases capacity for work and physical strength, but overexercise or excessive physical work, indicated by an increased rate of respiration and a feeling of oppression in the cardiac region, causes debility and wasting diseases (*Sū.* **7**, 31-35).

In order to maintain good health one should not unnecessarily or unduly suppress the natural urges and body-functions; he should not sleep in a crooked position, nor on a narrow and uneven bed; he should not ride on an uncomfortable saddle or carriage-seat; he should not gaze directly at the sun or strong lights, nor expose himself to strong sunlight, storm or snow-fall for extended periods, nor warm himself directly before or over a fire; he should not indulge excessively in alcoholic drinks, heavy meals, or sexual acts, nor mate with a diseased or unfit partner, nor take part in unnatural or improper sexual relations; he should avoid keeping late hours, taking a cold bath or a cold drink in a fatigued condition, and using soiled clothes after a bath (*Sū.* **8**, 19-22).

The mental impulses of greed, fear, anger, excessive melancholy, vanity, hatred, harsh speech and evil thoughts are as injurious to the body as to the mind (*Sū.* **7**, 26-28).

All harmful physical and mental habits can be overcome gradually by proper training or by personal effort (*Sū.* **7**, 36-38).

Special measures are recommended for the maintenance of health during seasonal changes. Sudation, sunbath, warm apartments, thick and protective dress and bedding, and rich food are recommended when the cold season sets in (*Sū.* **6**, 9-21). Physical exercise, lightly cooked meats and light alcoholic beverages are prescribed for spring time (*Sū.* **6**, 24-26). Rich food, alcohol and hard exercise should be avoided in summer. In the hottest days one should not venture out in the noon-time heat, but take rest by sleeping during the day in order to compensate for keeping late hours at night (*Sū.* **7**, 30). Thrice a year at prescribed seasons, the body should be cleansed of all accumulated waste matter by sudation, steam-baths, emesis, purgative drugs, enemas, and douches (*Sū.* **7**, 47).

(*b*) Effects of Environment on Health

Caraka treats bodily health not only as a personal problem, but also in its relation to heredity (*Śā.* **3**, 3-17), geographical environment, climate, water-supply and seasonal variations (*Vi.* **3**, 6). The possibility of diseases due to such external factors alone was recognized (*Vi.* **3**, 4).

According to Caraka, though individual persons differ widely in physical health and vitality, they are collectively liable to devastating epidemics caused by external factors (*Vi.* **3**, 6-7).

Inhabitants of open spaces with scanty rainfall, and predominance of dry winds and of isolated forest areas are generally well-knit, hardy and healthy. Inhabitants of humid climates with abundant rainfall, marshy lands, deltas, and dense forests are generally delicate in physique and in health. Areas with a proper balance of dry and moist seasons and of open spaces and forests generally contribute to good health (*Ka.* **1**, 8; *Vi.* **3**, 7, 47).

It is stated that from the beginning of the summer to the end of the rainy season there is a gradual waning of strength in man (*Sū.* **6**, 6-7). The cold season increases appetite and digestive power, when, with proper nourishment, the bodily vigour reaches its highest peak (*Sū.* **6**, 8-9).

(*c*) NUTRITION AND DIET

Āhāratattva (*Sū.* **25**, 35, etc.) or dietetics forms an important and integral part of the *Caraka Saṃhitā* (*Sū.* Chap. 5, 6, 25, 26, 27; *Śā.* Chap. 6). Wholesome diet is stated to promote bodily growth and health; unwholesome food is the most important cause of diseases (*Sū.* **25**, 31). The importance of a proper diet in health and sickness is repeatedly stressed upon (*Sū.* Chap. 5, 6; *Śā.* Chap. 6). In the chapter on digestion it is asserted that the life-process itself depends upon the production of body-heat, derived from the food taken (*Ci.* **15**, 3-5).

A direct relationship is said to exist between the tastes of substances and their physiological actions. No distinction can be drawn between foods and drugs, as both possess taste and nutritive value, and exert specific action on the body.

Edible and potable substances are classified into cereals, legumes, potable water, salts, pot-herbs, fish, flesh, fruits, sugarcane derivatives, milk, ghee and other milk products, vegetable oils, lards, animal fats, and alcoholic beverages (*Sū.* **25**, 38). The most nutritive and the most harmful in each class are listed (*Sū.* **25**, 38-39). Eggs, blood and semen of various creatures are also stated to have nutritive value, though their use is not recommended (*Śā.* **6**, 10).

The text mentions in detail the digestibility, nutritive value and medicinal action of several hundred different edible and potable substances of various classes (*Sū.* Chap. 27). It is pointed out that all such substances can gain in nutritive value or become harmful by combination with other items, by cooking or preparation, and according to quantity taken, palatability, appetite, bodily health, local climate, season, and eating habits (*Sū.* **26**, 87-89). A list of substances which are incompatible with each other, or unwholesome in particular seasons, is given (*Sū.* **26**, 84 *et seq.*).

Even light, easily digested and nutritious food should not be taken in excess of bodily requirements, or after the appetite has been satisfied. Difficultly digestible food should not be taken habitually. If ever used, the quantity should not exceed a fraction of a full meal (*Sū.* **5**, 7-11). Rich spicy foods, fats, and alcoholic drinks are stated to be beneficial in the cold season; lightly cooked cereals and meats, salts and light wines in spring and autumn; and light gruels, vegetables, fruits and acidulated cold drinks in summer (*Sū.* Chap. 6).

According to their intrinsic properties different foods undergo metabolism into body-elements of the same nature and inhibit the formation of those having opposite properties (*Sū.* **6**, 16). A properly planned diet, using various aggreeable and nourishing foods in rotation, regulates the body-elements (*Sū.* **6**, 6 and 7).

(*d*) REJUVENATION

Revitalization therapy is a prominent feature of the *Caraka Saṃhitā.* It is suggested that the body-fluids are capable of being replenished and renewed by proper medication; and that it is possible to achieve not only vitality and vigour, but also greater resistance to disease, longevity without senile decay, heightened memory and intelligence, and an improvement in bodily strength, personal beauty and sense perceptions. In fact, Caraka asserts that even in old age it is possible to regain youth and remain youthful for a very long period. (*Ci.* **1/1**, 6-12).

The treatment for rejuvenation follows the fulfilment of three preliminary conditions: namely, the patient must start with a single-minded determination and complete faith; he should undergo the treatment in a nursing home (the exact specifications and equipment of which are listed); he should remain under the constant supervision of his physician. The season and weather for treatment must be properly selected (*Ci.* **1/1**, 17-23).

The body is then thoroughly cleansed by oil massage and sudation by various means. A course of intestinal aperients like myrobolans, rock-salt and special spices is given for cleansing the intestines. The diet is limited to light gruel and warm water (*Ci.* **1/1**, 25-27).

Many preparations are prescribed for the actual rejuvenation process. The fruits, plants and herbs used for such prescriptions must be collected from Himalayan forests in their proper seasons and in perfect and flawless state. Pure honey, ghee, salts and minerals are also mentioned as ingredients in many prescriptions. Special diets are described in all cases (*Ci.* Chap. 1).

Claims have been made that it is possible by a special course of rejuvenation to transform entirely an aged and diseased body into a fresh and youthful one in the course of six months (*Ci.* **1/4**, 7).

(*e*) PUBLIC SANITATION

Some advice regarding public sanitation is found in the *Caraka Saṃhitā*. People are urged to avoid all filthy matters like offal, broken fragments of cooking vessels, and waters of public baths (*Sū.* **8**, 18/6). Blowing the nose in a crowd or committing nuisance on a public road is forbidden. Adultery, association with prostitutes, gambling, drunkenness, crude habits of eating, dirty or inadequate dress, and picking the nose, or sneezing, are considered unhealthy practices to be avoided by those aspiring after a clean and meritorious life (*Sū.* **8**, 19-25).

Contaminated water is recognized to be a major cause of ill health and epidemics (*Vi.* **3**, 7), and the use of only clean and pure water from natural sources is recommended at various places of the text (*Sū.* **6**, 47, etc.).

VI. PHYSICIANS IN CARAKA

The *Caraka Saṃhitā* lays down an elaborate code regarding the training, duties, privileges and social status of physicians.

Any person could aspire to be a physician, provided he had a clear idea of the duties and obligations pertaining to the profession. Good health, capacity for sustained effort and single-minded devotion to the science were considered as essential qualifications for the student of medicine. An austere and celibate life was enjoined for the disciple during his training period (*Vi.* **8**, 3, 7, 13).

The student was free to choose his own branch of the science. The choice of a teacher also rested with him. But it was for the teacher to assess the merit of the candidate from his appearance, voice, acuteness of sensory perceptions, personality, intellectual capacity and mental outlook before selecting him as a disciple. Instructions were given free. The disciple lived with the preceptor like a son, slave or supplicant till the training was completed and had to follow a rigid time-table (*Vi.* **8**, 3, 4, 7, 8, 13).

Aspiration for success, wealth and fame was considered normal on the part of an intending physician; but obligations to his future patients and to the society were repeatedly impressed upon by the preceptor. Desertion of, or injury to, patients under any circumstances was strictly forbidden (*Vi.* **8**, 13).

A physician should remain, in a sense, a student all his life, gaining experience, knowledge and understanding. Great stress has been laid on periodic discussions and debates with other physicians in conferences and in private (*Vi.* **8**, 13, 20). Theoretical knowledge, clarity of reasoning, wide practical experience, and personal skill have been described as the four valued qualifications of the physician (*Vi*, **9**, 6). He is expected to lead a disciplined and unostentatious life, to be pleasant in his manners, and to be considerate and

gentle in speech (*Vi.* **8**, 13). Friendship towards all, compassion for the ailing, devotion to professional duties and a philosophical attitude to cases with fatal endings—these have been defined as the four corner-stones of medical practice (*Sū.* **9**, 26). Caraka advises that the physicians, while treating diseases, should also observe the instructions of the *Atharvaveda,* which include *svastyayana* (propitiatory rites), *bali* (offerings), *maṅgala homa* (auspicious oblations), *niyama* (penances), *prāyaścitta* (purificatory rites), *upavāsa* (fasting) and *mantra* (incantations), as also the use of *maṇi* (gems) in amulets (*Sū.* **30**, 21; **26**, 70; *Ci.* **1**, 3.)

According to Caraka a physician is not expected to treat a person hated by the king or by the public (*Vi.* **8**, 13), or a habitually vicious or dishonourable person (*Vi.* **3**, 45). He is also not expected to treat patients suffering from incurable maladies (*Sū.* **10**, 8).

The physician must not enter a private house without previous permission or proper introduction, nor attend a woman in the absence of her husband or guardian. He must not also say or do anything which might shock the patient or the relations and friends of the patient. He must not divulge any information about the patient and his household (*Vi.* **8**, 13).

The physician, according to Caraka, should be held in high respect both by the king and the public (*Sū.* **9**, 19). The practice of medicine by unqualified persons or self-styled physicians has been strongly condemned (*Sū.* **29**, 12).

The physician is expected to maintain his own nursing home and dispensary, prepare medicinal preparations from raw materials, and arrange for the services of nurses and qualified attendants (*Sū.* Chap. 15).

VII. DIAGNOSIS OF DISEASES

The Saṃhitā gives directions for the diagnosis of a large number of diseases from a consideration of their etiology, symptoms and prognosis. It also contains an exposition of the general theory and methods of diagnosis.

According to Caraka, there are three means open to the physician for ascertaining the nature of any sickness. They are: (*i*) theoretical knowledge of the possible causes and symptoms of all known diseases, (*ii*) meticulous observation of the patient's symptoms and complaints, (*iii*) inferences based on previous experience. In the absence of one or more of the three aids to diagnosis, or with their fragmentary or incorrect knowledge, the physician cannot come to a true conclusion (*Vi.* **4**, 3-5).

At another place Caraka again states that the three methods for the ascertainment of the nature of diseases are: *nidāna* (cause and effect relation), *pūrvarūpa* (invariable prognostication), and *upaśaya* and *anupaśaya* (concomitant variation) (*Ni.* **1**, 7, 8, 10).

It is essential for the physician to have an exhaustive theoretical know-

ledge of the nature of all diseases—their specific sources, exciting factors, preliminary indications, bodily symptoms, local pains caused by them, possible complications and aggravations, degrees of severity, periods of duration, and indications of recovery and convalescence. By interrogation and by the application of his own trained senses the physician should conduct a detailed examination of the patient's appearance, voice, abnormalities, intestinal and other internal sounds, blood and other body-fluids, and bodily excretions. If necessary, he should draw a sample of the patient's blood and test it by offering it to a dog or a crow. He should also gather all possible information regarding the digestion, bowel movement, vitality, acuteness of sensory perceptions, clarity of mind, memory, psychic condition, irregularities of behaviour, dreams, aversions, hankerings and complaints of the patient. Latent symptoms, if any, should be tested by provocative medication. Only then he can make a diagnosis of the ailment, determine the expectation of recovery or imminence of death, and decide upon a course of treatment (*Vi.* **4**, 6-9). It has been emphasized that fever is the first symptom of all diseases (*Ni.* **1**, 16).

Diseases can be mild or severe. The preliminary symptoms are often the same. In fact, the behaviour, bodily appearance and apparent vitality of the patient may sometimes give false indications. It is easy for the inexperienced physician to jump to conclusions on insufficient or misleading evidence. A mild palliative prescribed for a disease which is destined to become serious, or a strong medicine for a mild variety, may cause considerable injury to the patient; even death may result. Mere identification of a disease does not mean its diagnosis; it is absolutely necessary to foresee its possible course and severity (*Vi.* **7**, 2, 3, 5, 7).

Some diseases are incurable and are known as such by their peculiar symptoms; such symptoms often indicate the period the patient will survive (*Ni.* **1**, 6; *In.* Chap. 6 & 7). Some diseases are secondary, being caused by others occurring earlier. They may occur after the original malady subsides, or may run simultaneously with the later phase of the primary disease (*Ni.* **8**, 20-23).

In diagnosis the patient's personal history and background are of great importance. Residents of different countries are used to different diets, have different habits, and differ in physical fitness and mental inclinations. Hence, what is wholesome and normal for one type of people may have opposite effects on another. The liability to diseases of a person depends upon his place of birth, normal place of residence and accidental presence in a foreign country (*Vi.* **8**, 93).

The patient's nature, abnormalities, vitality, physical build, bodily proportions, physical equilibrium, psychic condition, capacity for food, capacity for physical exercise, and age — all are important factors in diagnosis (*Vi.* **8**, 94).

If the body-elements are individually healthy and collectively in harmony with each other, the patient is highly resistant to diseases and specially to diseases of the severe type (*Vi.* **8**, 111). He is also not easily affected by senile decay. The opposite is true for people with unhealthy and unbalanced body-elements (*Vi.* **8**, 112). In addition to these extreme cases, there are also intermediate types (*Vi.* **8**, 113).

VIII. METHODS OF TREATMENT, INCLUDING SURGERY

Different types of methods for the treatment of diseases have been described by Caraka, as follows:

(1) *Oral medication* by single or compounded medicinal substances; sometimes more than fifty in a prescription are listed. Special emphasis is laid on diet, considered an essential part of the treatment (*Sū.* Chap. 5, 6, 25, 26, 27). Purgation and/or emesis is frequently recommended for cleansing the system of accumulated waste materials. Apart from drugs, purging is also effected by enemas (*Ci.* Chap. 7, 13, etc.; *Si.* Chap. 9-12).

(2) (*a*) *Eye-drops and -salves* for eye diseases and loss of visual power (*Sū.* **5**, 18, etc.).
(*b*) *Gargles* for diseases of the mouth, throat, teeth and gums (*Sū.* **5**, 78, 79, etc.).
(*c*) *Medicinal cigars and smoking mixtures* for affections of the head, nose, throat and bronchial tract (*Sū.* **5**, 24, etc.).
(*d*) *Nasal medication in the form of powders, ointments, or inhaled fumes* for psychic disorders, fainting fits, and affections of the nose (*Sū.* **5**, 13, 14, etc.). In epilepsy and insanity, herbs and animal substances are burnt for inhalation (*Ci.* Chap. 10).

(3) *Liquid unguents, creams, salves, ointments, lotions and medicated oils* for the skin and other parts (*Ci.* Chap. 6, 7, etc.).

(4) *Suppositories, tampons, and soaked cotton swabs* for ear-passages and lower orifices of the body (*Ci.* Chap. 7, 8, etc.).

(5) *Enemas* of nutritive and healing fluid-mixtures for absorption in the rectal and vaginal passages in wasting diseases, debility and fractures (*Si.* Chap. 3, 5, 12, etc.).

(6) *Douches* for flushing the rectal, vaginal and urethral passages and for relieving congestion (*Sū.* Chap. 9, 10, etc.). Douche cans, tubes, and catheters, made of gold, silver or alloys, were used for this purpose (*Sū.* **1**, 44, 45, etc.).

(7) *Sweating* the body surface by sun-bath, heated air, steam, or contact with hot surfaces for cleansing the system of absorbed impurities; sudation by steaming decoctions of medicinal

substances, vapours, fomentation, poultices, solid lumps of medicinal matter and hot immersion bath (*Sū.* Chap. 14).

(8) *Bandages, splints and tourniquets* in fractures and surgical conditions (*Si.* Chap. 9). *Ligatures* for poisonous bites and for surgical operations (*Ci.* Chap. 23, 24, etc.).

(9) *Bleeding* by incision, or by the application of leeches, in poisonous bites, epilepsy, rheumatism, etc. (*Ci.* Chap. 10, 23, etc.).

(10) *Excision, incision, puncturing, removal of the skin-layer, cauterization, surgical removal, rupturing, probing and other surgical methods* (*Sū.* **11**, 55); the removal of a dead foetus (*Śā.* **8**, 30, *et scq.*) and an operation for peritonitis (*Ci.* **13**, 185 *et seq.*) have been described in some detail; scalpels, metallic probes, etc. were used in such processes (*Si.* Chap. 9). The use of live ants of the big variety to grip together and hold tight the skin-flaps after an internal operation has been described (*Ci.* **13**, 190 *et seq.*). The ants were killed by hot water and cut in two, with their gripping jaws left behind.

(11) *Psychiatric methods* for curing mental conditions (*Vi.* Chap. 6).

In the treatment of all diseases the physician should take care to perform the following preparatory processes: purification (purgation, emesis, etc.), tranquilization (use of sedatives) of the system, and avoidance of all causative factors (*Vi.* **8**, 30).

IX. POISONS

The *Caraka Saṃhitā* includes a detailed discussion of the various categories of poisons and the means by which they enter the human system; their symptoms, effects and antidotes are also described.

The venoms secreted by animals, reptiles, aquatic creatures and insects are conveyed by their bites. They generally act very rapidly causing burning sensation, inflammation, swelling, drowsiness, fainting and diarrhoea. The symptoms are more pronounced in the lower extremities of the body (*Ci.* **10**, 15, 17, 23).

Poisons from vegetable roots and bulbs, mineral poisons and artificially prepared poisons enter the human body through foods, beverages, water, smoke, vapours, skin-applications, or by mere contact (*Ci.* **23**, 106-122). Such poisons act slowly and cause fever, spasms, throat contraction, muscular rigidity, partial paralysis, frothy salivation and vomiting. The symptoms are more pronounced in the upper parts of the body (*Ci.* **23**, 16-17).

The toxic effects are liable to be mistaken for diseases (*Ci.* **23**, 18). They vitiate the blood and other body-elements progressively; eight distinct stages with increasingly graver symptoms have been noted (*Ci.* **23**, 14). Death may be caused by poisoning in the absence of proper treatment (*Ci.* **23**, 31).

Treatment for poisoning consists in the immediate application of stimulants to protect the heart, followed by incision, tourniquets, ligatures, suction, blood-letting, application of freshly cut meat, oral medicines and counter-poisons, according to the nature of the toxic substance (*Ci.* **23**, 35-50). For poisoning through food, drinks, etc., the immediate treatment is emesis (*Ci.* **23**, 122).

A description of the distinctive symptoms of bites by ten types of snakes (cobra, viper, etc.), mosquitoes, poisonous flies, hornets, spiders, scorpions, lizards, rats, crabs, toads (*Ci.* **23**, 124-158), dogs and some predatory animals (*Ci.* **23**, 175, 220-232) is found in the text with specific antidotes for individual cases.

The medicinal value of venoms and vegetable poisons were known in Caraka's time. They are described to have antagonistic effects in the presence of each other (*Ci.* **23**, 17). A significant passage states that even deadly poisons can be converted into excellent medicines by the right method of application (*Sū.* **1**, 126).

Fumigation from vegetable and animal substances has been described as an antidote for most poisons (*Ci.* **23**, 99). The insecticidal and vermicidal action of fumigation were also recognized and several recipes given for the purpose (*Ci.* **23**, 98-100).

X. PHYSICOCHEMICAL PROCESSES

Many of the common laboratory processes known today are found in the *Caraka Saṃhitā*. They occur in various passages which give instructions for compounding medicinal preparations (*Ci.* Chap. 1, 2, 15, etc.). A list of terms for such processes is given in Table 17.

Actual weights of the various ingredients of prescriptions are given in many cases; volumes are given in some instances. The *tulā* (balance) was used for weighing, and *mānabhāṇḍas* (measuring vessels) for measuring liquids (*Sū.* **15**, 7). A list of the apparatus, mentioned in the various processes, is given in Table 16.

Descriptions of the following processes are given in some detail:

(1) A flame test for food-poisons (possibly copper salts), where the flame shows a colour like the feathers of a peacock (*Ci.* **23**, 109).

(2) A process of destructive distillation (*Ci.* **15**, 174).

(3) A process for the separation of the volatile components of a mixture, using distillation and air-condensation (*Ci.* **1/2**, 14).

(4) A process for continuous extraction of the fatty matter present in a plant product by repeated distillation with a volatile oil, followed by its condensation (*Vi.* **7**, 22).

For the purpose of heating, wood and the dried cakes of various animal dungs were used according to the temperature required (*Ci.* Chap. 1, 2, 15, etc.).

The mechanical processes mentioned are listed in Table 18.

XI. CLASSIFICATIONS

Vibhāgavidyā (*Vi.* **4**, 4), or the theory of classification, is a feature of the *Caraka Saṃhitā.*

Many substances and phenomena are divided into rational groups.

(1) The days of the *Saṃvatsara* (solar year) are divided into:

(*a*) *Udakāyana* (period of absorption of moisture)

(*b*) *Dakṣiṇāyana* or *Visarga* (period of liberation of moisture).

Each of these periods is sub-divided into three seasons (*Śū.* **6**, 4).

(2) *Deśa* (habitable land) is classified according to topography, rainfall and vegetation into:

(*a*) *Jaṅgala* (dry grass lands)

(*b*) *Anupa* (wet lands)

(*c*) *Sādhāraṇa* (intermediate types) (*Ka.* **1**, 8).

(3) *Prāṇī* (living creatures) are classified according to their manner of birth as:

(*i*) *Jarāyuja* (born of womb)

(*ii*) *Aṇḍaja* (born of eggs)

(*iii*) *Svedaja* (born of heat and moisture)

(*iv*) *Udbhidjja* (born of seeds) (*Śā.* **3**, 16).

They are also classified in different contexts as:

(*a*) *Kṛmi* (parasites found in living creatures) (*Sū.* **19**, 4-9)

(*b*) *Kīṭa* (wingless insects) (*Sū.* **27**, 213)

(*c*) *Pataṅga* (flying insects) (*Śā.* **8**, 59)

(*d*) *Ekaśapha* (solidungulate animals) (*Sū.* **27**, 211)

(*e*) *Dviśapha* (cloven-footed animals) (*Ci.* **17**, 118)

(*f*) *Mṛga* (herbivorous animals) (*Sū.* **13**, 11)

(*g*) *Kravyāda* (carnivorous animals) (*Sū.* **22**, 27)

(*h*) *Śvāpada* (dangerous beasts of prey) (*Śā.* **8**, 59)

(*i*) *Vyāla* (beasts of prey) (*Ci.* **23**, 176)

(*j*) *Gomāyu* (creatures with poisonous fangs or stings) (*Ci.* **23**, 10)

(*k*) *Sarpa* (snakes) (*Sū.* **27**, 213).

Creatures, whose flesh has got dietic value, have been divided into eight groups (*Sū.* chap. 27). Table I gives a list of these groups.

(4) *Udbhid* substances (plants or vegetation) are said to be of four types:

(*i*) *Vanaspati* (bearing fruits only)

(*ii*) *Vānaspatya* (bearing fruits as well as flowers)

(*iii*) *Oṣadhi* (dying after bearing fruits)
(*iv*) *Virudha* (shrubs or herbs).

Udbhid substances (plants) also are divided in fifty groups according to the physiological actions of their decoctions (*Sū.* chap. 4):

(*a*) *Jivanīya* (promoter of longevity)
(*b*) *Bṛṃhanīya* (roborant and nourishing)
(*c*) *Lekhanīya* (reducing obesity and scarifying)
(*d*) *Bhedanīya* (promoter of excretion)
(*e*) *Sandhānīya* (promotes joining of fractured parts)
(*f*) *Dīpanīya* promoter of digestion)
(*g*) *Balya* (promoter of strength)
(*h*) *Varṇya* (brightens complexion)
(*i*) *Kaṇṭhya* (improves voice)
(*j*) *Hṛdya* (cordial)
(*k*) *Tṛptighna* (removes sense of satiety)
(*l*) *Arśaghna* (curative of piles or haemorrhoids)
(*m*) *Kuṣṭhaghna* (curative of obstinate skin diseases)
(*n*) *Kaṇḍughna* (curative of pruritus)
(*o*) *Kṛmighna* (curative of worms)
(*p*) *Viṣaghna* (antidote to poisoning)
(*q*) *Stanyajanana* (promoter of lactation)
(*r*) *Stanyaśodhana* (purifier of breast-milk)
(*s*) *Śukrajanana* (promoter of semen generation)
(*t*) *Śukraśodhana* (purifier of semen)
(*u*) *Snehopaga* (emollient)
(*v*) *Svedopaga* (diaphoretic)
(*w*) *Vamanopaga* (emetic)
(*x*) *Virecanopaga* (purgative)
(*y*) *Arusthāpanopaga* (useful in corrective enemas)
(*z*) *Anuvasanopaga* (useful in enemas)
(*aa*) *Śirovirecanopaga* (prevents discharges from the nose)
(*bb*) *Chardinigrahaṇa* (curative of nausea)
(*cc*) *Tṛṣṇānigrahaṇa* (curative of morbid thirst)
(*dd*) *Hikkānigrahaṇa* (curative of hiccup)
(*ee*) *Purīṣasaṃgrahaṇīya* (renders faecal matters consistent)
(*ff*) *Purīṣavirajanīya* (alters colour of faecal pigment)
(*gg*) *Mūtrasaṃgrahaṇīya* (corrective of excessive urination)
(*hh*) *Mūtravirajaṇīya* (curative of coloured urine)
(*ii*) *Mūtravirecanīya* (diuretic)
(*jj*) *Kāśahara* (curative of cough)
(*kk*) *Śvāsahara* (curative of laboured breathing)
(*ll*) *Svayathuhara* (curative of swelling and oedema)

(*mm*) *Jvarahara* (curative of fever)
(*nn*) *Śramahara* (curative of fatigue)
(*oo*) *Dāhapraśamana* (curative of burning sensation)
(*pp*) *Śītapraśamana* (curative of the sensation of cold)
(*qq*) *Udardapraśamana* (curative of urticaria)
(*rr*) *Aṅgamardapraśamana* (relieves pain in the limbs)
(*ss*) *Śūlapraśamana* (cures pain in the bowels)
(*tt*) *Śoṇitasthāpana* (haemostatic)
(*uu*) *Vedanāsthāpana* (anodyne)
(*vv*) *Saṃjñāsthāpana* (resuscitative)
(*ww*) *Prajāsthāpana* (procreant, or curative of sterility)
(*xx*) *Vayaḥsthāpana* (prevents ageing).

A mention of the classification of plants into male and female varieties is found in Caraka in the case of the *Kūṭaja* (*Holarrhena antidysentrica*) plant (*Ka.* **5**, 3, 5).

(5) *Dravya* (material substance) can be of three types in the context of their medicinal use:

(*i*) *Jaṅgama* (originating from mobile living bodies)
(*ii*) *Udbhid* (originating from plants)
(*iii*) *Pārthiva* (of mineral origin) (*Sū.* **1**, 68):

(*i*) *Jaṅgama* substances used in medicine are: *madhu* (honey), *gorasa* (milk), *pitta* (bile), *vasā* (fat), *majjā* (bone-marrow), *asṛk* (blood), *āmiṣa* (flesh), *mūtra* (urine), *carma* (hide), *retas* (semen), *asthi* (bone), *snāyu* (tendon or ligament), *śṛṅga* (horn), *nakha* (nail), *khura* (hoof), *keśa* (hair), *loma* (fur or body-hair), *rocanā* (a bright yellow deposit obtained from bile) (*Sū.* **1**, 69)

(*ii*) *Udbhid* substances used in medicine are: *mūla* (root), *tvak* (bark), *sāra* (pith), *niryyāsa* (resin or exudate), *nāla* (hollow stem or stalk), *khara* (prickly or rough parts), *pallava* (sprout or shoot), *kṣāra* (alkaline matter), *kṣīra* (sap), *phala* (fruit), *puṣpa* (flower), *bhasma* (ash), *tailāni* (expressed or essential oils), *kaṇṭaka* (thorn), *patrāṇi* (leaves), *śūṅga* (sheath or calyx of bud), *kanda* (bulb), *praroha* (parasitic growth) (*Sū* **1**, 73-74).

(*iii*) *Pārthiva* substances used in medicine are: *suvarṇa* (gold), *pañcaloha* (the five base metals; namely, silver, copper, iron, tin, lead), *mala* (the ores or corroded forms of the base metals), *sikatā* (sand), *manaḥśilā* (realgar), *maṇi* (gem or precious stone), *lavaṇa* (salts), *gairika* (red ochre), *añjana* (antimony black), *āla* (yellow orpiment).

(6) Natural waters are classified according to their sources (Table 6).

(7) Diseases are classified as:

(*a*) *Nijaśarīradoṣa* (inborn)

(*b*) *Āgantuja* (communicated from outside)

(*c*) *Mānasa* (mental) (*Sū.* **11**, 45).

(8) Poisons are classified into:

(*a*) *Jaṅgama viṣa* (venom)

(*b*) *Sthāvara viṣa* (vegetable poisons)

(*c*) *Garaviṣa* (artificially prepared or mineral poisons) (*Ci.* Chap. 23).

(9) *Kṛmi* (parasites of the body) are classified as:

(*a*) *Sahaja* (symbiotic parasites)

(*b*) *Purīṣaja* (derived from faeces)

(*c*) *Kaphaja* (derived from mucus)

(*d*) *Śoṇitaja* (derived from the blood stream)

(*e*) *Malaja* (derived from the waste products of the body) (*Sū.* Chap. 19).

TABLE 1

Living Creatures

Name in Caraka, reference, and synonyms (if any)	English and/or Latin name	Modern classification
PRASAH-VARGA (*Sū.* **27**, 35, 36)	Creatures which grab and tear off their food	
1. AŚVA *Syn.:* HAYA *In.* **12**, 83 TURAGA *Vi.* **3**, 36 TURAṄGA *Ci.* **9**, 154 VĀJIN *Sū.* **1**, 104	Horse (*Equus caballus*)	Mammal
2. AŚVATARA	Mule	,,
3. BABHRU	Large brown mongoose (*Herpestes mungo*)	,,
4. BHĀSA	Bearded vulture (*Gypatus barbatus*)	Bird
5. CĀSA	Blue jay (*Cyanocitta cristata*)	,,
6 DHUMIKĀ	Owlet (*Athene brama*)	,,
7. DVĪPIN	Panther (*Felis pardus*)	Mammal
8. GO *Syn.:* DHENU *Ci.* **2/3**, 3 VṚṢA *Si.* **12**, 18 ṚṢABHA *Ci.* **10**, 48 JĀRADRAVA *Si.* **3**, 10	Cow (*Bos tauras*)	,,
9. GṚDHRA	Vulture (*Vulture monachus*)	Bird
10. JAMBUKA *Syn.:* ŚṚGĀLA *Ci.* **10**, 41	Jackal (*Canis aureus*)	Mammal
11. KHARA	Ass (*Asinus equidae*)	,,
12. KULIṄGAKA	Sparrow hawk (*Ploceus bengalensis*)	Bird
13. KURARA	Osprey (*Pandion heliactus*)	,,
14. LOPĀKA	Fox (*Vulpus bengalensis*)	Mammal
15. MADHUHĀ	Honey buzzard (*Pernis apivorus*)	Bird
16. MĀRJĀRA *Syn.:* VIḌĀLA *Ci.* **10**, 41	Cat (*Felis domesticus*)	Mammal
17. MUṢIKA *Syn.:* MUṢAKA *Vi.* **3**, 7/3 UNDURA *Ci.* **23**, 9	Mouse (*Mus musculus*)	Mammal
18. ṚKṢA	Bear (*Melusus labiatus*)	,,
19. ŚAŚAGHNA	Golden eagle (*Aquilar chrysaetos*)	Bird
20. SIṂHA	Lion (*Felis leo*)	Mammal
21. ŚYENA	Hawk (*Accipiter gentilis*)	Bird
22. TARAKṢU	Hyena (*Hyaena striata*)	Mammal

TABLE I—(Contd.)

Name in Caraka, reference, and synonyms (if any)	English and/or Latin name	Modern classification
23. ULUKA	Indian horned owl (*Bubo bengalensis*)	Bird
24. UṢṬRA *Syn.:* KARABHA *Ci.* **13,** 107	Camel (*Camelus dromedarius*)	Mammal
25. VĀNARA	Hanuman or Langur (*Semnopithecus entellus*) and other Indian monkeys (*Semnopithecus*)	,,
26. VĀNTADA *Syn.:* ŚVAN *Ci.* **10,** 41	Dog (*Canis familiaris*)	Mammal
27. VĀYASA *Syn.:* KĀKA *Ci.* **23,** 47	Crow (*Corvus splendens*)	Bird
28. VṚKA	Wolf (*Canis lupus*)	Mammal
29. VYĀGHRA *Syn.:* ŚĀRDŪLA *Ci.* **23,** 192	Tiger (*Felis tigris*)	,,
BHŪMIŚAYA-VARGA *Sū.* **27,** 37, 38	Burrowing animals	
1. BHEKA *Syn.:* MAṆḌŪKA *Ci.* **23,** 9	Frog (*Rana*)	Amphibia
2. CILLATA	Water shrew (*Neomys fodiens*)	Mammal
3. CITRAPRASTHA KĀKULIMṚGA	Reticulated python (*Python reticulus*)	Reptile
4. GAṆḌAKA	Gecko lizard (*Geckonida*)	,,
5. GODHĀ	Iguana lizard (*Iguanidae*)	,,
6. KADALIN	Marmot (*Marmota*)	Mammal
7. KṚṢṆAKĀKULIMṚGA	Black python (*Python molurus*)	Reptile
8. KURCIKĀ	Hedge-hog (*Erinaceus europaeus*)	Mammal
9. NAKULA	Small mongoose (*Herpestes mungo*)	,,
10. ŚALLAKA	Porcupine (*Acanthion leucura*)	,,
11. ŚVĀVIT	Pangolin (*Manis pentadactyl*)	,,
12. ŚVETAKĀKULIMṚGA	White python (*Python molurus*)	Reptile
13. ŚYĀMAKĀKULIMṚGA	Dark grey python (*Python molurus*)	,,
ANUPA-VARGA *Sū.* **27,** 39	Creatures that dwell in marshy and wet lands	
1. CAMARA	Yak (*Poephagus grumnicus*)	Mammal
2. GAJA *Syn.:* HASTĪN *Sū.* **1,** 102 KUÑJARA *Ci.* **10,** 40	Elephant (*Elaphus indicus*)	,,
3. GAVAYA	Goyal ox (*Bos frontalis*)	,,

TABLE I—(Contd.)

Name in Caraka, reference, and synonyms (if any)	English and/or Latin name	Modern classification
4. KHAṄGA	Rhinoceros (*Rhinoceros unicornis*)	Mammal
5. MAHIṢA *Syn.:* RAKTĀKṢA *Ci.* **4**, 4	Buffalo (*Bos bubalus*)	,,
6. NYĀṄKU	Hog deer (*Cervus porcinus*)	,,
7. RURŪ	Swamp deer (*Rucervus durancelli*)	,,
8. ŚṚMĀRA	Indian wild boar (*Sus cristatus*)	,,
9. VARĀHA	Pig (*Sus scrofa*)	,,
VĀRIŚA-VARGA *Sū.* **27**, 40	Creatures that live under water	
1. CULUKI	Porpoise (*Neomeris phocaenoides*)	Mammal
2. KARKAṬAKA *Syn.:* UCCIṬIṄGA *Ci.* **23**, 153	Crab (*Brachyura*)	Crustacea
3. KUMBHĪRA *Syn.:* NAKRA *Ci.* **2/2**, 10	Gharial crocodile (*Crocodylus porosus*)	Reptile
4. KŪRMA *Syn.:* KACCHAPA *Ci.* **2/2**, 10	Tortoise or turtle (*Chelonia*)	,,
5. MAKARA	Capricorn (Sea monster ?)	
6. MATSYA	Fish (*Pisces*)	Fish
7. ŚAṄKHA	Conch snail (*Gastropoda*)	Gastropoda
8. ŚIŚUMĀRA	Dolphin (*Dolphinus gangetica*)	Mammal
9. ŚUKTI	Pearl oyster (*Margaritifera*)	Mollusca
10. TIMIṄGILA	Whale (*Cetacea*)	Mammal
AMBUCĀRI-VARGA *Sū.* **27**, 41-44	Creatures that live around, or on the surface of, water	
1. AMBUKUKKUṬĪ	Moor hen (*Gallinula chloropus*)	Bird
2. ĀRĀ	Avocet (*Recurvirostra avosetta*)	,,
3. BALĀKĀ	Crane (*Ardea nivea*)	,,
4. CAKRAVĀKA	Ruddy sheldrake (*Anas cascara*)	,,
5. HAṂSA *Syn.:* DHĀRTARĀṢTRA *Sū.* **27**, 85	Swan (*Cygnus olor*)	,,
6. KADAMBA	Grey-leg goose (*Anser anser*)	,,
7. KĀKATUṆḌAKA	River tern (*Sterna hirundo*)	,,
8. KĀMAKĀLI	Tropic bird (*Phaethon rubricauda*)	,,
9. KĀRAṆḌAVA	White-fronted goose (*Anser albifrons*)	,,
10. KEŚARIN	Curlew (*Oedienemus crepitans*)	,,

TABLE I—(Contd.)

Name in Caraka, reference, and synonyms (if any)	English and/or Latin name	Modern classification
11. KRAUÑCA	Demoiselle crane (*Anthropoides virgo*)	Bird
12. MADGU	Small cormorant (*Phalacrocorus pygmaeus*)	,,
13. MAṆITUṆḌAKA	Oyster-catcher (*Haematopus ostrolegus*)	,,
14. MEGHARĀVA	Trumpeteer swan (*Cygnus buccinator*)	,,
15. MṚṆĀLAKAṆṬHA	Snake-bird (*Plotus anginga*)	,,
16. NANDĪMUKHA	Flamingo (*Phoenicopterus roseus*)	,,
17. PĀKAHAṂSA	Mute swan (*Cygnus olor*)	,,
18. PLAVA	Pelican (*Pelicanus onocrotalus*)	,,
19. PUṢKARĀVYA	Lily trotter (*Ardea sibirica*)	,,
20. PUṆḌARĪKĀKṢA	White-eyed pochard (*Nyroca ferina*)	,,
21. RAKTAŚĪRṢAKA	Purple heron (*Ardea purpurea*)	,,
22. ROHIṆĪ	Common teal (*Anas crecia*)	,,
23. SAHACĀRIN	Petrel (*Oceanitidae*)	,,
24. ŚARARA	Skimmer bird (*Rhynchops*)	,,
25. SĀRASA	Indian crane (*Megalornis grus*)	,,
26. SUMUKHA	Mandarin duck (*Anas galericulata*)	,,
27. UTKOṢA	Mallard (*Anas platyrhynchos*)	,,
28. VAKA	Heron (*Ardea goliath*)	,,
29. VĀTI	Little grebe (*Podiceps ruficellis*)	,,
JAṄGALA-VARGA *Sū.* **27**, 45, 46	Herbivorous animals living in grass-lands or forests	
1. CĀRUṢKA	Gazelle (*Gazelle bennetti*)	Mammal
2. EṆA	Fawn deer (*Cervus rusa*)	,,
3. GOKARṆA	Cow-eared deer (*Antilope picta*)	,,
4. HARIṆA	Black buck (*Antilope cervicapra*)	,,
5. KĀLAPUCCHAKA *Syn.:* ASITAPUCCHAKA *Ci.* **14**, 138	Black-tailed deer (*Odocoilus* ?)	,,
6. KOṬṬAKĀRAKA	Barking deer (*Cervus muntjae*)	Mammal
7. KṚṢṆA	Musk deer (*Moschus moschiferus*)	,,
8. KURAṄGA	Indian antelope (*Antilope cervicapra*)	,,
9. MṚGAMĀTṚKĀ	Red deer ? (*Cervus elaphus*)	,,
10. PṚSATA	Spotted deer (*Cervus axis*)	,,
11. RĀMA	Kashmir red deer (*Cervus elaphus*)	,,
12. SAMBHARA	Sambhar (*Cervus unicolor*)	,,
13. ŚARABHA	Wapiti (*Cervus canadensis*) ?	,,

TABLE I—(Contd.)

Name in Caraka, reference, and synonyms (if any)	English and/or Latin name	Modern classification
14. ŚAŚA	Hare or rabbit (*Leporidae*)	Mammal
15. ŚVADAṂṢṬṚ	Mouse deer (*Tregulus meminna*)	,,
16. URAṆA	Oorial or wild sheep (*Ovis vignei*)	,,
17. VARAPOTA	Small antelope (*Antilope cervicapra*)	,,
VIṢKIRA-VARGA *Sū.* **27**, 47, 49	Birds that scatter their food	Gallinaceous birds
1. AVAKARA *Syn.:* MAYŪRA *Sū.* **26**, 84 ŚIKHIN *Sū.* **27**, 58 BARHIN *Ci.* **23**, 182	Peacock or pea-fowl (*Pavo cristatus*)	Bird
2. CAKORA	Greek pheasant (*Perdix rufa*)	,,
3. GIRIVARTAKA	Mountain quail (*Coturnix coturnix*)	,,
4. GONARDA	Hill partridge (*Ardea sibirica*)	,,
5. INDRĀBHA	Hedge sparrow (*Leucocerea aureola*)	,,
6. KAṄKA	Heron (*Ardeidae*)	,,
7. KAPIÑJALA	Black partridge (*Francolinus vulgaris*)	,,
8. KRAKARA	Snipe (*Ardea virago*)	,,
9. KUKKUBHA	Crow pheasant (*Coccyzus*)	,,
10. KUKKUṬA *Syn.:* CARAṆĀYUDHA *Sū.* **7**, 11 DAKṢA *Si.* **10**, 11 TĀMRACUḌA *Ci.* **2/2**, 28	Red-spur fowl (*Galloperdix spadicea*)	,,
11. LAVA	Bustard quail (*Turnix suscitates*)	,,
12. RAKTAVARTMAKA	Red jungle fowl (*Gallus ferruginous*)	,,
13. SĀRAPADA	Stork (*Ciconia boycinia*)	,,
14. TITTIRI	Gray partridge (*Arborophila torquala*)	,,
15. UPACAKRA	Smaller Greek pheasant (*Perdix rufa*)	,,
16. VARAPADA	Spoon-bill (*Platela leucorodia*)	,,
17. VARTAKA	Indian button quail (*Turnix indica*)	,,
18. VARTIKĀ	Bush quail (*Coturnix sylvatica*)	,,
19. VARTIRAKA	Rain quail (*Coturnix coromandelica*)	,,
PRATUDA-VARGA *Sū.* **27**, 50-52	Birds that peck and gobble their food	Bird
1. AṄGĀRACŪḌAKA	Black bulbul (*Microscelsis psaroidies*)	,,
2. ATYUHA	Red-vented bulbul (*Molpastes haemorrhous*)	,,
3. BABHRU-VAṬAHĀ	Brown tree-pie (*Dendrocitta rufa*)	,,
4. BHṚṄGARĀJA	Shrike (*Lanalidae*)	,,
5. CAṬAKA *Syn.:* KULIṄGA *Si.* **12**, 19/1	Tree sparrow (*Passer montanus*)	,,

TABLE I—(Contd.)

Name in Caraka, reference, and synonyms (if any)	English and/or Latin name	Modern classification
6. CIRAṬI	Babbler (*Timelidae*)	Bird
7. ḌIṆḌIMĀNAKA	Toucan (*Ramphistos piscivorous*)	,,
8. DUNDUBHI	Grey hornbill (*Lophoceros birostris*)	,,
9. GOPAPUTRA	Cow-bird (*Molothrus*)	,,
10. JAṬI	Indian hoopee (*Upupa indica*)	,,
11. JĪVAJĪVAKA *Syn.:* JĪVAÑJĪVA *In.* **12**, 75	Peacock pheasant (*Chalcurus*)	,,
12. KAIRĀTA	Red-faced malkoha (*Pheanicophaes pyrrhocephalus*)	,,
13. KALĀVIṄKA	House sparrow (*Passer domesticus*)	,,
14. KAṄKU	Blossom-headed parakeet (*Torquatus rosa*)	,,
15. KAPOTA	Spotted pigeon (*Chalesphaps indica*)	,,
16. KOKILA *Syn.:* VĀSANTAKA *Ci.* **14**, 56	Indian koel (*Endynamis honorata*)	,,
17. KOJAṢṬHI	Green-bill coucal (*Centropus chlorhynchus*)	,,
18. KULIṄGAKA	Weaver bird (sparrow hawk) (*Ploceus bengalensis*)	,,
19. LAṬṬAŚĀKA	Paradise flycatcher (*Musciapidae techitrea*)	,,
20. LAṬVĀ	Pied flycatcher (*Musciapidae atricapilla*)	,,
21. LOHAPṚṢṬA	King-fisher (*Alcedo ispida*)	,,
22. PĀKKĀRA	Green barbet (*Thereiceryx zeylonicus*)	,,
23. PĀṆḌANAVIKA	Wood pigeon (*Columba palumbas*)	,,
24. PĀRĀVATA	Pigeon (*Columba treron*)	,,
25. PRIYĀTMAJA	Indian babbler (*Argya caudata*)	,,
26. SĀRAṄGA	Ringneck parakeet (*Palaeonis torquatus*)	,,
27. ŚĀRIKĀ	Mynah (*Turdus salica*)	,,
28. ŚATAPATRA	Black wood-pecker (*Picus martius*)	,,
29. ŚUKA	Green parakeet (*Psittacula spengeli*)	,,
30. YAṢṬHIKĀ	Sun bird (*Nectarinidae*)	,,
KṚMI-VARGA *Sū.* **19**, 4/9	Parasites inhabiting the living body	Nematoda
(*a*) *Living in the body excretions*		
1. YŪKĀ		
2. PIPĪLIKĀ		
(*b*) *Living in the blood*		
3. AUDUMBARA		
4. JANTUMĀTĀRA		

TABLE I—(Contd.)

Name in Caraka, reference, and synonyms (if any)	English and/or Latin name	Modern classification
5. KEŚADA		
6. LOMADA		
7. LOMADVĪPA		
8. SAURASA		
(*c*) *Living in the mucus and phlegm*		
9. ANTRADA		
10. CURU		
11. DARBHA-PUṢPA		
12. HṚDAYADA		
13. MAHĀGUDA		
14. SAUGANDHIKA		
15. UDARAVEṢṬA		
(*d*) *Living in the faeces*		
16. KAKERUKA		
17. LELIHA		
18. MAKERUKA		
19. SAŚULAKA		
20. SAUSURADA		
GOMĀYU-VARGA *Ci.* **23,** 9, 10	Creatures with poisonous fangs or stings	
1. ĀKHU	Rat (*Mus rattus*)	Mammal
2. ĀŚĪVIṢA	Snake (*Ophidia*)	Reptile
3. JALAUKAS	Leech (*Hirunidae*)	Chaetopoda
4. KṚKAṆṬAKA	A type of scorpion (*Palamnaeus*)	Arachnida
5. KUḌYAKĪṬAKA	Wall lizard (*Lacerta muralis*)	Reptile
6. LUTĀ	Spider (*Lycosidae*)	Arachnida
7. MAṆḌŪKA	Frog (*Rana*)	Amphibia
8. MATSYA	Fish (*Pisces*)	Pisces
9. NAKULA	Mongoose (*Herpestes mungo*)	Mammal
10. PATAṄGA	Flying insects	Hymenoptera & Diptera
11. ŚĀRDŪLA	Tiger (*Felis tigris*)	Mammal
12. ŚATAPADĪ	Centipede (*Chilopoda*)	Arthropoda
13. SIṂHA	Lion (*Felis leo*)	Mammal
14. STHAGIKĀ MAKṢIKĀ	Hornet or wasp (*Vespa*)	Hymenoptera

TABLE I—(Contd.)

Name in Caraka, reference, and synonyms (if any)	English and/or Latin name	Modern classification
15. ŚVAN	Dog (*Canis familiaris*)	Mammal
16. TARAKṢU	Hyena (*Hyaena striatus*)	"
17. VIŚVAMBHARA	Scorpion (*Palamnaeus*)	Arachnida
SARPA-VARGA *Sū.* **27**, 213	Snakes (*Ophidia*)	Reptiles
SARPA *Syn.:* AHI *Ci.* **10**, 31 URAGA *Ci.* **27**, 31 ĀŚĪVIṢA *Ci.* **13**, 9		
1. BHUJAGAPATI *Ci.* **23**, 99	King cobra (*Naja bungarus*)	"
2. DARVIKARA-SARPA *Ci.* **23**, 124	Viper (*Bitis echis*)	"
3. GODHERAKA-SARPA *Ci.* **23**, 134	Hybrid of the snake and the iguana (?)	"
4. GONASA-SARPA *Ci.* **23**, 136	?	"
5. KṚṢṆASARPA *Ci.* **23**, 124	A kind of poisonus snake	"
6. MAṆḌALI-SARPA *Ci.* **23**, 124	Indian cobra (*Naja tripudiana*)	"
7. PATRAGA *Ci.* **23**, 84	Tree-snake (*Chrysopelia ornate*)	"
8. RAJIMAN-SARPA *Ci.* **23**, 124	Striped snake with spots on its body	"
9. TAKṢAKA *Ci.* **23**, 195	*Trimeresurus gramineus* ?	"
UNCLASSIFIED		
1. AJA *Sū.* **2**, 93 *Syn.:* BASTA *Sū.* **25**, 39 CHĀGA *Ci.* **23**, 77	Goat (*Capra hircus*)	Mammal
2. AVI *Syn.:* ĀVIKA *Sū.* **27**, 223 MEṢA *Ci.* **17**, 116 URABHRA *Sū.* **6**, 43	Sheep (*Ovis*)	"
3. DVIKAKUDA *Ci.* **14**, 207	Two-humped camel (*Camelus bactrianus*)	"
4. GAṆḌUPADA *Ci.* 8, 151	Earthworm (*Lumbicidae*)	Annelida
5. JATUKA *Ci* **24**, 48	Lac insect (*Coccus lacca*)	Coccifera
6. MADHUMAKṢIKĀ *Sū.* **5**, 43	Honey bee (*Apis indica*)	Hymenoptera
7. MADHU-BHRAMARA *Sū.* **27**, 243	Black honey-bee (*Apis dorsata*)	"
8. MAKṢIKĀ *Ci.* **20**, 29	House-fly (*Musca domestica*)	Diptera
9. MĀNUṢA *Sū.* **27**, 224	Man (*Homo sapiens*)	Mammal
10. MAŚAKA *In.* **2**, 21	Mosquito (*Culicidae*)	Diptera
11. MATSYAKA *Śā.* **8**, 19	Silver-fish (*Lepisma saccharina*)	Thysanura
12. PIPĪLIKĀ *Ci.* **23**, 187	Ant (*Formicoida*)	Hymenoptera
13. RĀJAHAṂSA *Sū.* **12**, 18/1	Royal Chinese swan (*Cygnus cygnoides*)	Bird
14. VASTRAKṚMI *Ci.* **23**, 100	Cloth-worm (*Tinea*)	Lepidoptera
15. YŪKĀ *Vi.* **7**, 10	Body and head louse (*Pediculus*)	Anoplura

TABLE 2

Medicinal Substances of Animal Origin and their Uses

Name and synonyms in Caraka, with references	English equivalent	Mode of use or application	Medicinal uses in
1. AHI *Ci.* **10**, 51	Snake	Inhalation of the fumes when burnt	Epilepsy
2. AHI-PURĪṢA *Ci.* **10**, 51	Snake-dung	As above	Insanity
3. AJĀ-KṢĪRA *Ci* **5**, 133; **8**, 116; 11, 50; **19**, 84; **25**, 40; **29**, 53, 133	Goat's milk	(*a*) External—in ointment (*b*) Internal—in diet (*c*) Internal—in medicated ghee (*d*) Internal—as ingredient of sweetened jelly	(*a*) Inflammation (*b*) Fever, enlarged spleen (*c*) Debility, haemothermia, etc. (*d*) Blood dysentery
4. AJA-MĀṂSA *Ci.* **11**, 83; **18**, 44; *Ka.* **1**, 28 *Syn.:* CHĀGA-MĀṂSA *Ci.* **23**, 67	Goat's flesh	(*a*) Local application for absorption of venoms (*b*) Internal—as soup in diet (*c*) Internal—as ingredient of ghee (*d*) Internal—the meat juice used in prescription	(*a*) Poisonous bites (*b*) Wasting diseases (*c*) Spleen disease; pain in the groin and pelvis (*d*) Anaemia, fistula, internal worms
5. AJA-MEDAS *Sū.* **25**, 38; Ci. **11**, 27	Goat's fat	Internal—in diet	Debility
6. AJĀ-MŪTRA *Sū.* **1**, 93, 100; *Ci.* **30**, 80	Urine of the she-goat	(*a*) External—for local massage (*b*) External—in medicated oil for local application (*c*) Internal—as drink	(*a*) Diseases of the spleen and stomach; piles, poisonous bites (*b*) Vaginal disorders (*c*) Jaundice, excessive bile secretion
7. AJA-RUDHIRA *Ci.* **19**, 74; **30**, 101; *Si.* **6**, 82; **10**, 41	Goat's blood	(*a*) As ingredient of enema (*b*) Internal—ingredient of liquid mixture	(*a*) Colic pain (*b*) Dysentery, vomiting, fainting, amenorrhoea
8. ĀKHU-MĀṂSA *Ci.* **23**, 100, 147; **26**, 175 *Syn.:* MUṢIKA-MĀṂSA *Si.* **12**, 18/5	Flesh of mouse and rat	(*a*) As ingredient of enema (*b*) Internal—as ingredient of medicinal ghee	(*a*) Acute constipation, retention of urine (*b*) Diseases of the head
9. AŚVA-KARĪṢA *Sū.* **14**, 26, 60; *Vi.* **7**, 22; *Ci.* **14**, 41; **17**, 116, 130, 134	Horse-dung	(*a*) External—as fumigant (*b*) External—in poultices (*c*) Internal—in decoction (*d*) Internal—as juice in mixture	(*a*) As diaphoretic (*b*) & (*c*) Piles (*d*) Haemothermia, hiccup
10. AŚVĀ-KṢĪRA *Ci.* **11**, 83	Mare's milk	As diet	Consumption

11. AVI-ŚOṆITA *Ci.* **30**, 101; *Si.* **10**, 41 *Syn.*: MEṢA-RAKTA *Ci.* **19**, 40	Sheep's blood	(*a*) As ingredient of rectal enema (*b*) Internal—in mixtures	(*a*) Haemorrhage (*b*) Amenorrhoea
12. AVI-MŪTRA *Sū.* **1**, 93, 100; *Ci.* **10**, 48; **26**, 185	Sheep's urine	(*a*) External—in nasal medication (*b*) External—in eye application (*c*) Internal—in infusion	(*a*) Diseases of the head (*b*) Epilepsy, insanity (*c*) Imbalance of the humors
13. BALĀKĀ-ASTHI *Ci.* **23**, 98	Bones of the crane	Burnt for fumigation	As vermicide and general disinfectant
14. BHUJAGAPATI-ŚĪRṢA *Ci.* **23**, 99	Hood of the king cobra	Inhalation of the fumes when burnt	Oedema, toxicosis, poisonous bites
15. CAKORA *Ci.* **2/1**, 46; **3**, 190; **23**, 110; *Si.* **12**, 19/1	Greek partridge	(*a*) External—extract of the flesh and marrow as ingredient of nutritive enema (*b*) Internal—as soup in diet	(*a*) Fever, debility (*b*) Debility, anaemia, fevers, female diseases
16. CAKORA-AṆḌA *Sū.* **27**, 85; *Ci.* **11**, 25	Eggs of the Greek partridge	(*a*) Internal—in diet (*b*) Internal—as ingredient of mixture	(*a*) Seminal weakness (*b*) Profuse bleeding
17. CARAṆĀYUDHA-MĀṂSA *Ci.* **3**, 197	Fowl's flesh	Internal—in diet	Fever, haemorrhage
18. CĀSA *In.* **12**, 76; *Ci.* **8**, 150; **17**, 118	The blue jay	(*a*) External—skin, bones and feathers burnt for fumigation (*b*) Internal—in diet	(*a*) Congestion of the respiratory tract (*b*) Consumption
19. CAṬAKA-AṆḌA *Sū.* **27**, 86	Sparrow's egg	Internal—in diet	Seminal weakness, cough, cardiac disorders
20. CAṬAKA-MĀṂSA *Sū.* **27**, 85; *Ci.* **2/2**, 10; **2/4**, 6; *Si.* **12**, 18/8, 19/1	Flesh of the sparrow	(*a*) Ingredient of nutritive enema (*b*) Internal—in diet	(*a*) Rheumatism, debility, female diseases, etc. (*b*) Sexual debility, general weakness
21. DAKṢA-AṆḌA *Ci.* **11**, 25	Egg of the common fowl	Internal—in diet	Profuse bleeding
22. DAKṢA-MALA *Ci.* **25**, 53 *Syn.*: KUKKUṬA-SAKṚT *Ci.* **14**, 54	Droppings of the common fowl	(*a*) External—local application (*b*) External—in ointment	(*a*) Suppurated swellings (*b*) Piles
23. DAKṢA-MĀṂSA *Ci.* **8**, 66, 158; **11**, 25 *Syn.*: KUKKUṬA-MĀṂSA *Ci.* **2/1**, 48; **23**, 67	Flesh of the common fowl	(*a*) External—local application for absorption of venom (*b*) Internal—in diet (*c*) Internal—the meat juice in diet	(*a*) Poisonous bites (*b*) Acute constipation, jaundice, dysentery, etc. (*c*) Bleeding piles, sexual debility
24. DAKṢA-ŚOṆITA *Si.* **10**, 41	Blood of the common fowl	Internal—in mixture	Amenorrhoea, fainting, diarrhoea, etc.
25. DHĀRTARĀṢṬRA-MĀṂSA *Sū.* **27**, 85	Flesh of the black-legged swan	Internal—as soup in diet	Seminal weakness, pulmonary weakness

TABLE 2

Medicinal Substances of Animal Origin and their Uses—(Contd.)

Name and synonyms in Caraka, with references	English equivalent	Mode of use or application	Medicinal uses in
26. DVIKAKUDA-RASA *Ci.* **14**, 207	Meat-juice of the two-humped camel	Internal—in diet	Bleeding piles
27. DVIŚAPHA-CARMAN, KṢURA, ŚṚṄGA *Ci.* **17**, 118	The skin, hooves and horns of cloven-footed animals	Inhalation of the fumes when burnt	Congestion of the respiratory tract
28. EKAŚAPHA-PAYAS *Sū.* **27**, 221	Milk of solidungulate animals	Internal—in diet	General weakness
29. EṆA-MĀṂSA *Sū.* **5**, 5; **6**, 43; **13**, 11; **15**, 7; **22**, 25; **27**, 46, 271; *Śā.* **8**, 24; *Ci.* **3**, 191; **4**, 41; **19**, 50; **23**, 226; **24**, 138	Flesh of the antelope	Internal—as soup in diet	Fever, emaciation, debility, constipation, toxicosis, etc.
30. EṆA-ŚOṆITA *Ci.* **19**, 74; **30**, 101; *Si.* **6**, 82; **10**, 41	Blood of the antelope	(*a*) Ingredient of rectal enema (*b*) Internal—in mixture	(*a*) Colic pain (*b*) Amenorrhoea, nausea, fainting, collapse, etc.
31. GAJA-ASTHI *Ci.* **14**, 55	Elephant's bones	External—the powder as ingredient of ointment	Piles
32. GAJA-MĀṂSA *Ci.* **2/2**, 29; **6**, 8, 154; **9**, 82; **14**, 56; **17**, 116; **18**, 20; **23**, 119	Elephant's flesh	Internal—in diet	Debility
33. GAJAMUKTIKA *Ci.* **23**, 252	?	Worn as talisman	Antidote for poisonous bites
34. GAJA-ŚAKṚT *Ci.* **17**, 116 *Syn.:* KUÑJARA-PURĪṢA *Ci.* **14**, 51	Elephant's dung	(*a*) Inhalation of the fumes when burnt (*b*) Internal—the aqueous extract taken with honey	(*a*) Epilepsy (*b*) Increase of phlegm or bile
35. GAṆḌUPADA *Ci.* **8**, 151	Earth-worms	Internal—in diet, after frying in ghee	Consumption
36. GO-CARMAN *Ci.* **9**, 49	Cow-hide	Internal—ashes, made ingredient of medicinal ghee	Insanity
37. GODHĀ-MĀṂSA *Sū.* **2**, 33; **27**, 38, 70; *Ci.* **7**, 88; **12**, 62; **14**, 126: **23**, 134, 186; *Si.* **12**, 18/5	Flesh of the iguana	(*a*) External—local application for absorption of venom (*b*) Ingredient of nutritive enema (*c*) External—the meat juice as skin lotion (*d*) Internal—as soup in diet	(*a*) Poisonous bites (*b*) Major wounds, fractures, misperistalsis (*c*) Persistent skin diseases (*d*) Rheumatic conditions, debility

38. GO-KṢĪRA *Sū.* **1**, 106; *Śā.* **8**, 24 *Syn.:* GO-PAYAS *Ci.* **2/1**, 35, etc.; *Si.* **10**, 41	Cow's milk	(*a*) External—in medicated oil (*b*) External—in ointment (*c*) Ingredient of nutritive enema (*d*) Internal—in diet (*e*) Internal—in mixture (*f*) Internal—in medicated ghee (*g*) Internal—in linctus (*h*) Internal—ingredient of candied sweets	(*a*) Burns, stiffness, etc. (*b*) Dislocation, fractures, etc. (*c*) Anaemia, amenorrhoea (*d*) Debility, spleen diseases (*e*) Jaundice, consumption, etc. (*f*) Menstrual disorders, tendency to abortion (*g*) and (*h*) Heart diseases, excessive bile secretion, etc.
39. GO-MĀṂSA *Sū.* **5**, 11; **25**, 39, etc.; *Ci.* **6**, 24; **8**, 185, etc.	Flesh of the cow	(*a*) External—local application for absorption of venom (*b*) Internal—as soup in diet	(*a*) Poisonous bites (*b*) Rheumatic fevers, emaciation, consumption
40. GO-MŪTRA *Sū.* **1**, 93; **3**, 13, etc.; *Vi.* **8**, 142; *Ci.* **5**, 178, etc.; *Ka.* **7**, 13, etc.; *Si.* **8**, 18, etc.	Urine of the cow	(*a*) External—as lotion (*b*) External—in ointment (*c*) Internal—as drink (*d*) Internal—in medicated ghee	(*a*) Skin diseases (*b*) Pruritus, snake-bites, etc. (*c*) Jaundice, leucoderma, etc. (*d*) Insanity, epilepsy, etc.
41. GO-ŚAKṚT *Sū.* **14**, 26; *Śā.* **8**, 10; *Ci.* **4**, 68; **7**, 57; **10**, 12; **13**, 130; **14**, 41; **18**, 91; **23**, 46, 48; **25**, 116	Cow-dung	(*a*) External—burnt for fumigation (*b*) External—ingredient of poultice (*c*) Internal—in medicated ghee (*d*) Internal—as aqueous extract with honey, etc.	(*a*) As diaphoretic (*b*) Skin lesions (*c*) Piles (*d*) Piles, poisoning, oedema, spleen diseases, etc.
42. GO-SARPIS *Sū.* **25**, 38, 40; *Ci.* **2/2**, 11; **2/4**, 25	Cow's fat	Internal—in diet	Debility, rheumatism
43. GO-ŚṚṄGA *Ci.* **17**, 79	Cow's horns	Inhalation of the fumes when burnt	Accumulation of phlegm
44. GO-SNĀYU *Ci.* **17**, 79	Cow's sinews	Inhalation of the fumes when burnt	Congestion of the respiratory tract
45. GṚDHRA-MĀṂSA *Ci.* **8**, 150; **10**, 51	Vulture's flesh	(*a*) Inhalation of the burning fumes (*b*) Internal—in diet	(*a*) Insanity (*b*) Consumption
46. GṚDHRA-PAKṢA *Ci.* **10**, 51	Wings of the vulture	Inhalation of the burning fumes	Insanity
47. HAṂSA-AṆḌA *Ci.* **2/1**, 49; *Si.* **12**, 7, 19	Swan's egg	Ingredient of nutritive emema	Fever, weakness, senility, gradual loss of sense perceptions
48. HAṂSA-MĀṂSA *Sū.* **13**, 83; **27**, 41, 66; *Ci.* **2/1**, 41, 48; **2/2**, 10; **6**, 24; **8**, 158; **23**, 253; **26**, 175	Flesh of the swan	(*a*) Internal—in diet (*b*) Internal—the meat-juice in diet (*c*) Internal—as ingredient of medicinal ghee	(*a*) Sallow complexion, emaciation (*b*) General weakness (*c*) Diseases of the head
49. HARIṆA-MĀṂSA *Śā.* **8**, 24; *Ci.* **3**, 191; **4**, 41; **14**, 201; **19**, 50; **23**, 226	Venison	Internal—in diet	Fever, haemorrhage, diarrhoea, habitual constipation, toxic condition

Table 2

Medicinal Substances of Animal Origin and their Uses—(Contd.)

Name and synonyms in Caraka, with references	English equivalent	Mode of use or application	Medicinal uses in
50. HASTINĪ-MŪTRA *Sū.* **1**, 102; *Ci.* **7**, 169	Urine of the she-elephant	(*a*) External—as lotion (*b*) Internal—as drink	(*a*) Leucoderma (*b*) Dermatosis, helminthiasis
51. HASTINĪ-PAYAS *Śā*, **27**, 223	Elephant's milk	Internal—in diet	Debility
52. JALAUKĀS *Ci.* **14**, 61; **21**, 69, 119; **29**, 36, 37	Leech	Local application of the living creatures for blood-letting	Piles, vitiated blood, rheumatism of the joints
53. JAMBUKA-MŪTRA, PITTA, KARĪṢA, NAKHA, CARMAN *Ci.* **10**, 51	Urine, bile, dung, nails and hide of the jackal	(*a*) Inhalation of the burning fumes (*b*) External—in making ointment	(*a*) Epilepsy (*b*) Insanity
54. JANḌAKA-CARMAN *Ci.* **17**, 118	Animal hides	(*a*) Inhalation of the burning fumes (*b*) External—powdered ashes in ointment	(*a*) Hiccup (*b*) Congestion of phlegm
55. JATUKA-VASĀ *Ci.* **14**, 48	Wax secreted by lac insects	(*a*) Inhalation of the burning fumes (*b*) External—local application	(*a*) & (*b*) Piles
56. JĪVAJĪVA-AṆḌA *Si.* **12**, 19/1	Egg of the peacock pheasant	Ingredient of nutritive enema	Debility, pectoral lesions, female diseases, recurrent fevers
57. KACCHAPA-RASA *Ci.* **19**, 38	Meat juice of the small tortoise	Internal—in diet	Diarrhoea
58. KĀKA-MĀṂSA *Ci.* **8**, 151	Crow's flesh	(*a*) Internal—in food (*b*) Internal—as meat-juice in liquid mixture	(*a*) Emaciation, consumption (*b*) Poisonous bites
59. KĀKA-PURĪṢA *Ci.* **10**, 51	Crow's droppings	Inhalation of the burning fumes	Epilepsy
60. KĀKA-ŚOṆITA *Ci.* **23**, 182	Crows' blood	External—as local application	Poisonous bites
61. KĀLAPUCCHAKA-MĀṂSA *Sū.* **15**, 7; **27**, 46; *Śā.* **8**, 24; *Ci.* **3**, 191; **4**, 41; **19**, 50	Flesh of the black-tailed deer	(*a*) Internal—in diet (*b*) Internal—as ingredient of soup	(*a*) Fever, haemothermia, tendency to abortion (*b*) Chronic diarrhoea
62. KALĀVIṄKA-PURĪṢA *Ci.* **25**, 100	Droppings of house sparrows	External—for local application	Non-healing wounds with granulation on the surface

63. KAPIÑJALA-MĀṂSA *Sū.* **5**, 5; **6**, 43; **15**, 16, etc.; *Śā.* **8**, 24; *Ci.* **3**, 190; **4**, 41; **19**, 50, etc.	Flesh of the common partridge	(*a*) Internal—in diet (*b*) Internal—meat-juice used in diet	(*a*) Vitiated breast-milk, tendency to abortion, etc. (*b*) Chronic diarrhoea, dysentery
64. KAPOTA-MĀṂSA *Sū.* **26**, 84; **27**, 52, 73; *Ci.* **4**, 41; **23**, 203, 208	Flesh of the pigeon	Internal—in diet	Excessive urination, haemothermia
65. KAPOTA-PURĪṢA *Ci.* **23**, 207, 208; **25**, 53, 100	Pigeon's droppings	External—for local application	Poisonous bites, suppurations, granulated non-healing wounds
66. KĀRAṆḌA-AṆḌA *Sū.* **27**, 41; *Si.* **12**, 19/2	Duck's egg	Ingredient of nutritive enema	Sexual debility, pectoral lesion, spleen diseases, female disorder
67. KARKAṬAKA-RASA *Si.* **12**, 18/7	Crab-meat juice	Ingredient of nutritive enema	Sexual debility
68. KHAṄGA-MĀṂSA *Sū.* **27**, 39, 84; *Śā.* **8**, 62; *Ci.* **8**, 154	Rhinoceros flesh	Internal—in diet	Emaciation, pallor, etc.
69. KHARA-ASTHI *Sū.* **27**, 35; *Śā.* **8**, 34, 41; *Ci.* **6**, 24; **7**, 168	Bones of the ass	External—the ashes as ingredient of ointment	Leucoderma
70. KHARA-KARĪṢA *Sū.* **14**, 26, 60; *Ci.* **14**, 41; **17**, 116	Ass's dung	(*a*) Inhalaion of the fumes when burnt (*b*) External—in ointment (*c*) Internal—in infusion with honey	(*a*) As diaphoretic (*b*) Piles (*c*) Hiccup, congestion of phlegm
71. KHARA-MĀṂSA *Ci.* **8**, 158	Ass's flesh	Internal—in diet	Emaciation
72. KHARA-MŪTRA *Sū.* **1**. 104	Ass's urine	Internal—as drink	Epilepsy, insanity
73. KRAKARA-MĀṂSA *Sū.* **27**, 49; *Ci.* **4**, 50	Snipe's flesh	Internal—in diet	Haemothermia
74. KRAVYĀDA-MĀṂSA *Sū.* **22**, 57	Flesh of carnivorous animals	Internal—in diet	Consumption, piles
75. KṚṢṆASARPA-VASĀ *Ci.* **14**. 48; **26**, 259	Fat of the cobra	(*a*) Inhalation of the fumes when burnt (*b*) External—as local application	(*a*) Piles (*b*) Eye-diseases
76. KṢAUDRA *Sū.* **6**, 39; **7**, 61, etc.; *Vi.* **7**, 32; *Ci.* **1/1**, 4, 51; **1/2**, 4, etc.	Honey	(*a*) Internal—as an adjunct in many medicinal prescriptions (*b*) Internal—in diet	(*a*) & (*b*) All diseased and weak conditions
77. KUKKUṬA-AṆḌAKAPĀLA *Ci.* **26**, 253	Shell of the hen's egg	External—as ingredient of ointment	Diseases of the vision, defects of the palate
78. KULIṄGA-AṆḌA *Si.* **12**, 19/1	Sparrow's egg	Ingredient of nutritive enema	As in Jīvajīva-aṇḍa (No. 56)
79. KUÑJARA-NAKHA *Ci.* **10**, 40	Elephant's nail	Inhalation of the fumes when burnt	Epilepsy

TABLE 2

Medicinal Substances of Animal Origin and their Uses—(Contd.)

Name and synonyms in Caraka, with references	English equivalent	Mode of use or application	Medicinal uses in
80. KURAṄGA-RASA *Sū.* **27**, 45; *Śā*, **8**, 24; *Ci.* **3**, 19	Meat-juice of the antelope	Internal—in diet	Tendency to abortion in pregnancy, fever
81. KURARA-MŪTRA, NAKHA, PITTA, PURĪṢA, CAÑCU, PAKṢA, *Ci.* **17**, 118	Urine, nails, bile, droppings, beak and feathers of the osprey	(*a*) Inhalation of the fumes when burnt (*b*) External—ashes as ingredient of ointment	(*a*) & (*b*) Piles
82. KŪRMA-RASA *Sū.* **27**, 40, 84; *Ci.* **5**, 169; **14**, 129	Meat juice of the large tortoise	Internal—in diet	Flatulence, rheumatism, etc.
83. KŪRMA-VASĀ *Ci.* **28**, 128	Fat of the tortoise	External—as nasal medication	Flatulence, rheumatism, etc.
84. LĀKṢĀ (JATU) *Ci.* **9**, 61; **11**, 15, etc.	Lac	(*a*) As fumigator (*b*) Ingredient of cigars (*c*) Internal—in mixed decoction (*d*) Internal—in linctus (*e*) Internal—in medicated ghee (*f*) Internal—in pills	(*a*) As insecticide and vermicide (*b*) Hiccup, deep-seated phlegm (*c*) Ulcers and lesions of the thoracic cavity, dysuria, lithiasis, etc. (*d*) & (*e*) Toxicosis, skin eruptions, eye diseases, defects of vision, mouth diseases, fistula, etc. (*f*) Loss of skin pigment
85. LAVA-MĀṂSA *Sū.* **5**, 5; **6**, 25, etc.; *Śā.* **8**, 24; *Ci.* **3**, 190; **4**, 41, etc.	Flesh of the bustard quail	(*a*) Internal—in diet (*b*) Internal—the meat-juice as ingredient of soup	(*a*) Consumption, hæmorrhage, tendency to abortion, etc. (*b*) Acute alcoholism, cardiac and pulmonary diseases, haemoptysis, chronic diarrhoea, etc.
86. LOPĀKA-MĀṂSA *Sū.* **27**, 36; *Ci.* **14**, 126, 207 *Syn.:* ŚṚGĀLA-MĀṂSA *Ci.* **8**, 152	Flesh of the fox	(*a*) Internal—in diet (*b*) Internal—the meat-juice in diet	(*a*) Consumption, emaciation (*b*) Bleeding piles
87. MADHŪCCHIṢṬA *Śā.* **3**, 16; *Ci.* **7**, 121; **11**, 17, etc.	Bee's wax	(*a*) Inhalation of burning fumes (*b*) As medium in cauterization (*c*) External—in ointment (*d*) External—in medicinal oil for massage (*e*) Internal—in mixture (*f*) Internal—in medicated ghee	(*a*) Cough, coryza, hiccup, etc. (*b*) Deep-seated pus (*c*) Dermatosis, painful wounds (*d*) Rheumatic pain in joints, fractures and dislocations (*e*) Pain in hypogastric region (*f*) Biliousness, haemothermia, etc.

88. MAHIṢA-MĀṂSA *Ci.* **2/1**, 42; **8**, 158, etc.; *Si.* **12**, 19/2	Buffalo-meat	(*a*) The meat-juice as ingredient of nutritive enema (*b*) Internal—in diet (*c*) Internal—the meat-juice in diet	(*a*) Debility, senile decay, female diseases, etc. (*b*) Consumption, emaciation (*c*) Sexual debility
89. MAHIṢA-ŚOṆITA *Si.* **10**, 41	Buffalo-blood	Ingredient of nutritive enema	Haemorrhage
90. MAHIṢĪ-DADHI *Ci.* **26**, 88	Curds from buffalo's milk	Internal—in medicated ghee	Cough, hiccup, anaemia, jaundice, etc.
91. MAHIṢĪ-KṢĪRA *Sū.* **25**, 40; **27**, 219; *Ci.* **11**, 83; **12**, 26, etc.; *Si.* **10**, 40; **12**, 19/1	Buffalo's milk	(*a*) Ingredient of nutritive enema (*b*) Internal—to be taken with cow's urine (*c*) Internal—in medicated ghee (*d*) Internal—in diet	(*a*) Seminal weakness, recurrent fever, senile decay, female disorders, etc. (*b*) Oedema (*c*) Consumptive cough (*d*) Insomnia, cough
92. MAHIṢĪ-MŪTRA *Sū.* **1**, 102; *Ci.* **13**, 151; **15**, 181	Urine of the she-buffalo	(*a*) Internal—ingredient of liquid mixture (*b*) Internal—powder prepared by mixing the urine with plants, followed by incineration	(*a*) Piles, oedema, abdominal diseases (*b*) Loss of appetite
93. MAHIṢĪ-GHṚTA *Ci.* **4**, 101; **16**, 53, 134; **23**, 241	Buffalo-ghee	(*a*) External—ingredient of nasal application (*b*) Internal—ingredient of medicated ghee	(*a*) Bleeding from the nose (*b*) Poisonous bites, jaundice, etc.
94. MĀKṢIKA-MADHU *Sū.* **5**, 43; **27**, 243, etc.; *Ci.* **4**, 83; **11**, 20, etc.	Bee's honey	(*a*) External—for local application with other ingredients (*b*) Internal—as an adjunct to many prescriptions	(*a*) Mouth diseases, sore throat (*b*) In various diseases
95. MAKṢIKĀ-VIṢṬHĀ *Ci.* **17**, 132; **30**, 325	Droppings of the house-fly	(*a*) External—in nasal errhine (*b*) Internal—as pill	(*a*) Hiccup (*b*) Vomiting
96. MĀRJĀRA-MĀṂSA *Si.* **12**, 18/5	Cat's flesh	The meat-juice as ingredient of nutritive enema	Debility, broken ribs, misperistalsis, retention of urine, etc.
97. MĀRJĀRA-NAKHA, PITTA, CARMAN, LOMAN, MŪTRA, PURĪṢA, *Ci.* **9**, 75; **10**, 41	Nails, bile, skin, fur, urine, and droppings of the cat	(*a*) Inhalation of the fumes (*b*) External—the ashes as ingredient of eye-ointment (*c*) External—in nasal medication	(*a*) & (*b*) Insanity (*c*) Epilepsy, insanity
98. MATSYA-ĀMIṢA *Sū.* **3**, 19; **5**, 11, etc.; *Ci.* **17**, 74; **24**, 124, etc.	Flesh of fishes	(*a*) External—as warm poultice (*b*) External—the flesh-juice as ingredient of medicated oil	(*a*) & (*b*) Rheumatic conditions (*c*) Indigestion, intestinal worms, debility

TABLE 2

Medicinal Substances of Animal Origin and their Uses—(Contd.)

Name and synonyms in Caraka, with references	English equivalent	Mode of use or application	Medicinal uses in
99. MATSYA-VASĀ *Ci.* **25**, 76; **28**, 128	Fish oil	(*a*) External—in nasal medication (*b*) Internal—as ingredient of jellied sweets	(*a*) Debility (*b*) Painful wounds
100. MATSYA-PITTA *Ci.* **30**, 103	Fish bile	External—for local application	Vaginal tumours
101. MAYŪRA-MĀṂSA *Sū.* **13**, 83; *Ci.* **4**, 50; **5**, 110; **10**, 39; **12**, 62, etc. *Syn.:* ŚIKHI-MĀṂSA *Sū.* **27**, 58; *Śā.* **8**, 28 BARHI-MĀṂSA *Ci.* **8**, 150	Flesh of the peacock	(*a*) The meat-juice as ingredient of nutritive enema (*b*) External—local application for absorption of venom (*c*) External—in nasal medication (*d*) Internal—in diet (*e*) Internal—the meat-juice in mixture	(*a*) Debility, rheumatism of the lower body (*b*) Poisonous bites (*c*) Heart disease, facial paralysis; ear, nose and throat diseases (*d*) Emaciation, seminal weakness, consumption, etc. (*e*) Oedema, diarrhoea, cardiac troubles, retarded development of the foetus
102. MAYŪRA-BARHA *Ci.* **23**, 98	Peacock's feathers	Burnt for fumigation	As vermicide, insecticide, and general disinfectant
103. MAYŪRA-PĀDANĀLA *Ci.* **17**, 117	Talons of the peacock	Internal—the burnt ashes as ingredient of linctus	Hiccup, congestion of phlegm
104. MEṢA-ŚAKṚT *Ci.* **17**, 116	Dung of the ram	Internal—in aqueous infusion with honey	Hiccup, congestion of phlegm
105. MṚGA-RASA *Ci.* **19**, 73; *Ka.* **12**, 8; *Si.* **12**, 18/10	Meat-juice of herbivorous forest animals	(*a*) Ingredient of nutritive enema (*b*) Internal—ingredient of soup	(*a*) Rheumatism of the lower limbs and organs (*b*) Enlarged spleen, dysentery
106. MUKTĀ *Ci.* **17**, 125	Pearl	Internal—powdered and made into linctus	Hiccup, cough
107. NAKULA-MĀṂSA *Ci.* **8**, 152; *Si.* **12**, 18/5	Flesh of the mongoose	(*a*) Ingredient of nutritive enema (*b*) Internal—in diet	(*a*) Sexual debility (*b*) Consumption
108. NAKULA-PURĪṢA *Ci.* **10**, 51	Dung of the mongoose	Inhalation of the fumes when burnt	Epilepsy, insanity
109. NAKRA-AṆḌA *Ci.* **2/2**, 28	Crocodile egg	Internal—as ingredient of sweetened pancakes	Seminal weakness, sexual debility

110. NAKRA-RETAS *Ci.* **2/1**, 48	The sperm of the crocodile	Internal—in diet, cooked with fowl's flesh	As a powerful aphrodisiac
111. NAKRA-VASĀ *Ci.* **28**, 128	Crocodile fat	External—in nasal medication	Rheumatism of the joints
112. NĀRĪ-KṢĪRA *Sū.* **27**, 224; *Ci.* **15**, 230; **17**, 131; **22**, 23	Human milk	(*a*) External—as ingredient of nasal medication (*b*) External—in eye-ointment (*c*) Internal—in diet	(*a*) Haemothermia, hiccup, excessive thirst (*b*) Opthalmia (*c*) Excessive hunger, emaciation, debility
113. PĀṆḌAVIKA-MĀṂSA *Sū.* **17**, 56	Flesh of the wood-pigeon	Internal—in diet	Debility, emaciation
114. PĀRĀVATA-RASA *Ci.* **4**, 41; **19**, 72; **22**, 29	Meat-juice of the dove	Internal—in diet	Haemothermia, excessive thrist, dysentery
115. PĀRĀVATA-ŚAKṚT *Ci.* **14**, 55	Droppings of the dove	External—in ointment	Piles
116. PIPĪLIKĀ *Ci.* **13**, 187	Ants of the big black species	Surgical use (vide text, p. 24)	Intestinal perforation
117. PLAVA-ASTHI *Ci.* **26**, 246	Bones of the pelican	External—the ashes as ingredient of eye-ointment	Eye diseases
118. PRASAHA-KṢĪRA *Ci.* **29**, 137	Milk of the tearer group of animals (vide Table 1)	External—as ingredient of poultice	Stiffness, cramps, pricking pain, swelling
119. PRASAHA-MĀṂSA *Ci.* **8**, 160; **15**, 210: **18**, 156; **24**, 124	Flesh of the tearer group of animals	(*a*) External—as poultice (*b*) Internal—in diet (*c*) Internal—the meat-juice as diet	(*a*) Stiffness, cramps, pricking pain, swelling (*b*) Indigestion, loss of appetite, consumption (*c*) Painful oedema of the groin and buttocks
120. PRATUDA-MĀṂSA *Ci.* **6**, 16; **8**, 161, 185; **29**, 50	Flesh of the pecker group of birds (Table 1)	(*a*) Internal—in diet (*b*) Internal—the meat-juice as diet	(*a*) Consumption (*b*) Urinary disorders, rheumatism, etc.
121. PRATUDA-VASĀ *Ci.* **29**, 74	Fat of the pecker group of birds	External—as ingredient of medicated ghee	Rheumatism
122. PRAVĀLA (VIDRUMA) *Ci.* **1/1**, 58; **1/4**, 22; **17**, 125; **26**, 56, 246	Coral	(*a*) External—powdered and used in medicated ghee (*b*) External—powdered and used in eye-ointment (*c*) Internal—as infusion of the powder in rice-water (*d*) Internal—the powder made into linctus	(*a*) Acute spreading inflammation (*b*) Eye-diseases (*c*) Dysuria (*d*) Hiccup, cough
123. PṚṢAD-RASA *Ci.* **3**, 191	Meat-juice of the spotted deer	(*a*) Ingredient of nutritive enema (*b*) Internal—in diet	(*a*) As in Jīvajīva-aṇḍa (56) (*b*) Fever, toxicosis

TABLE 2

Medicinal Substances of Animal Origin and their Uses—(Contd.)

Name and synonyms in Caraka, with references	English equivalent	Mode of use or application	Medicinal uses in
124. RĀJAHAṂSA-RASA *Si.* **12,** 18/1	Meat-juice of the swan	Ingredient of nutritive enema	Weakness, oligospermia, sexual debility
125. ṚKṢA-MĀṂSA *Ci.* **8,** 153	Bear's flesh	Internal—in diet	Consumption
126. ṚKṢA-VASĀ *Ci.* **26,** 47; **30,** 112	Bear's fat	(*a*) External—local application (*b*) Internal—used in decoction	(*a*) Prolapsed uterus (*b*) Dysuria
127. ROHITA-ĀMIṢA *Ci.* **2/4,** 18; *Si.* **12,** 18/4	Flesh of the red carp fish	Internal—in diet	Indigestion, weakness, sexual debility
128. ROHITA-PITTA *Ci.* **23,** 183	Bile of the red carp fish	External—as ingredient of eye-ointment	Poisonous bites in the region of the eyes
129. ŚALLAKA-CARMAN, LOMAN, MŪTRA, NAKHA, PITTA, ŚAKṚT *Ci.* **9,** 75	The hide, fur, urine, nails, bile, and droppings of the porcupine	(*a*) Inhalation of the fumes when burnt (*b*) External—the ashes as ingredient of ointment	(*a*) Insanity (*b*) Epilepsy
130. ŚALLAKA-ASTHI, *Ci.* **17,** 117	Bones and quills of the porcupine	Internal—the ashes as ingredient of linctus	Severe hiccup
131. ŚALLAKA-MĀṂSA *Sū.* **27,** 71; *Ci.* **17,** 112	Flesh of the porcupine	(*a*) The meat-juice as ingredient of nutritive enema (*b*) Internal—in diet (*c*) Internal—the meat-juice in liquid mixture	(*a*) Severe injuries, fracture, uraemia, constipation (*b*) Loss of appetite, congestion of phlegm, etc. (*c*) Flatulence, rheumatism
132. SAMBHARA-MĀṂSA *Sū.* **27,** 46; *Śā.* **8,** 24	Flesh of the sambhara deer	Internal—in diet	Tendency to abortion in pregnancy
133. ŚAṄKHA-CŪRṆA *Sū.* **27,** 40; *Ci.* **3,** 262; **4,** 79, etc.	Conch-shell powder	(*a*) External in ointment (*b*) External—in poultice (*c*) Internal—in linctus	(*a*) Persistent skin diseases (*b*) Eye-diseases (*c*) Cough, hiccup
134. ŚAPHARI *Ci.* **2/4,** 17	A kind of small fish	Internal—in diet	Sexual debility
135. SĀRASA-AṆḌA *Si.* **12,** 17, 19/2	Crane's egg	Ingredient of nutritive enema	Seminal weakness, debility
136. SĀRASA-ASTHI *Ci.* **26,** 55	Bones of the crane	Internal—powdered and used as ingredient of medicine	Dysuria
137. SARPA-NIRMOKA *Ci.* **14,** 49	Cast-off slough of the snake	Inhalation of the fumes when burnt	Piles

138. ŚAŚA-MĀṂSA *Sū.* **15**, 7; **27**, 45, 76; *Śā.* **8**, 24; *Ci.* **3**, 191; **4**, 41; **26**, 175, etc.	Flesh of the rabbit or hare	(*a*) Internal—in diet (*b*) Internal—the meat-juice used in medicated ghee	(*a*) Fever, mild rheumatism, alcoholism, haemothermia (*b*) Diseases of the head
139. ŚIKHI-AṆḌA *Si.* **12**, 17, 19/1, 24 *Syn.*: BARHI-AṆḌA *Ci.* **2/1**, 49	Egg of the pea-hen	(*a*) Ingredient of nutritive enema (*b*) Internal—in diet	(*a*) As in Jīvajīva-aṇḍa (56) (*b*) Seminal weakness
140. ŚIKHI-PADA *Ci.* **18**, 170	Peacock's claws	Internal—the ashes as ingredient of medicated ghee	Hiccup, cough
141. ŚIKHI-PITTA *Ci.* **7**, 170; **23**, 51, 217	Peacock's bile	(*a*) External—in ointment (*b*) Internal—in pills (*c*) Internal—in medicated ghee	(*a*) Leucoderma (*b*) Poisoning (*c*) Poisonous bites
142. SIṂHA-MĀṂSA *Ci.* **8**, 153	Flesh of the lion	Internal—as diet	Consumption
143. SIṂHA-MŪTRA *Ci.* **10**, 41	Urine of the lion	External—as nasal medication	Epilepsy
144. SIṂHA-VASĀ *Ci.* **3**, 306	Lion's fat	Internal—in medicated ghee	Recurrent fever
145. ŚṚGĀLA-MŪTRA *Ci.* **10**, 41	Jackal's urine	External—in nasal medication	Epilepsy
146. ŚṚGĀLA-PITTA *Ci.* **9**, 67	Bile of the jackal	External—ingredient of eye-ointment	Eye diseases
147. ŚŪKARA-MĀṂSA *Ci.* **17**, 74	Pork	Internal—in diet as soup	Hiccup
148. ŚVA-MŪTRA *Ci.* **10**, 41	Dog's urine	External—as nasal medication	Epilepsy
149. ŚVA-PITTA *Ci.* **10**, 50	Dog's bile	Inhalation of the fumes when burnt	Epilepsy
150. ŚVĀVIT-MĀṂSA *Ci.* **14**, 126; **17**, 112	Flesh of the pangolin	Internal—in diet	Hiccup, rheumatism
151. ŚYENA-RASA *Sū.* **27**, 36	Meat-juice of the hawk	Internal—in diet	For proper growth of the foetus
152. TĀMRACŪḌA-RASA *Sū.* **2**, 32; *Śā.* **8**, 28	Meat-juice of the red-crested cock	Internal—in diet	Diseases of the urethral passage, abnormal growth of the foetus
153. TARAKṢU-MĀṂSA *Ci.* **8**, 153; *Si.* **12**, 19/1	Flesh of the hyena	(*a*) Ingredient of nutritive enema (*b*) Internal—in diet	(*a*) As in Jīvajīva-aṇḍa (56) (*b*) Consumption
154. TITTIRI-MĀṂSA *Śā.* **8**, 28; *Ci.* **2/1**, 41; **11**, 70, etc.	Flesh of the grey partridge	(*a*) Internal—as ingredient of sweetened jelly (*b*) Internal—in diet	(*a*) Rheumatism, emaciation, menstrual disorders, sterility in women (*b*) Constipation, piles, jaundice, etc.

TABLE 2

Medicinal Substances of Animal Origin and their Uses—(Contd.)

Name and synonyms in Caraka, with references	English equivalent	Mode of use or application	Medicinal uses in
155. ULŪKA-CARMAN, MŪTRA, NAKHA, PURĪṢA, PITTA *Ci.* **9,** 75	Skin, urine, nails, dung and bile of the owl	(*a*) Inhalation of the fumes when burnt (*b*) External—prepared for local application	(*a*) & (*b*) Insanity
156. ULŪKA-MĀṂSA *Ci.* **8,** 150	Flesh of the owl	Internal—in diet	Consumption
157. UṢṬRA-KARĪṢA *Sū.* **14**, 26; *Ci.* **17,** 116	Camel-dung	Burnt for fumigation	As a diaphoretic
158. UṢṬRA-MĀṂSA *Ci.* **8,** 158; **14,** 126	Flesh of the camel	Internal—in diet	Emaciation, flatulence
159. UṢṬRA-MŪTRA *Sū.* **1,** 103	Camel's urine	Internal—as drink	Hiccup, cough, piles
160. UṢṬRA-VASĀ *Ci.* **14,** 48	Camel's fat	(*a*) Inhalation of the fumes when burnt (*b*) External—for local application	(*a*) & (*b*) Piles
161. UṢṬRĪ-PAYAS *Ci.* **13,** 107, 183; **22,** 23	Camel's milk	(*a*) Internal—to be used as exclusive diet for one month (*b*) Internal—in diet	(*a*) Oedema (*b*) Constipation, colic pain, debility, etc.
162. VASTĀ-CARMAN, MŪTRA, NAKHA, PURĪṢA, PITTA *Ci.* **9,** 75	Hide, urine, nails, dung and bile of the she-goat	(*a*) Inhalation of the fumes when burnt (*b*) External—prepared for local application	(*a*) & (*b*) Insanity
163. VASTA-MŪTRA *Ci.* **9,** 71; **10,** 26, etc.	Urine of the he-goat	(*a*) External—in ointment (*b*) External—in nasal medication (*c*) External—in eye-ointment (*d*) Internal—in medicated ghee	(*a*) Epilepsy, toxicosis, piles, vaginitis, cervicitis (*b*) Insanity (*c*) Dimness of vision, infection and discharge of pus (*d*) Cardiac seizures
164. VARĀHA-MĀṂSA *Sū* **27,** 78; *Ci.* **2/4,** 11; **18,** 80	Hog's flesh	Internal—in diet	Emaciation, loss of appetite, neuralgia, sexual debility
165. VARĀHA-PITTA *Ci.* **5,** 175	Hog's bile	External—for local application	Tumour inside the vaginal passage
166. VARĀHA-ŚOṆITA *Ci.* **7,** 122; **30,** 110	Hog's blood	(*a*) External—as skin lotion (*b*) Internal—as ingredient of acidulated drink	(*a*) Cutaneous eruptions (*b*) Amenorrhoea

167. VARĀHA-ŚAKṚT *Ci.* **14,** 51; **17,** 116	Hog's dung	(*a*) Inhalation of the fumes when burnt (*b*) Internal—the aqueous extract in linctus	(*a*) Piles (*b*) Hiccup, deep-seated phelgm
168. VARĀHA-VṚṢAṆA *Si.* **12,** 18/8	Hog's testes	Ingredient of nutritive enema	Sexual debility
169. VARTAKA-MĀṂSA *Sū.* **27,** 48; *Ci.* **4,** 41, 250; **5,** 110, etc.	Flesh of the button-quail	Internal—in diet	Flatulence, enlarged spleen, haemothermia
170. VIṢKIRA-MĀṂSA *Sū.* **27,** 48; *Ci.* **6,** 19; **8,** 161, etc.	Flesh of the gallinaceous birds (Table I)	(*a*) Ingredient of nutritive enema (*b*) Internal—in diet	(*a*) Sexual debility, dysuria (*b*) Rheumatic conditions, excessive bile secretion, etc.
171. VṚKA-CARMAN, MŪTRA, NAKHA, PITTA, ŚAKṚT *Ci.* **9,** 75	Hide, urine, nails, dung and bile of the wolf	(*a*) Inhalation of the fumes when burnt (*b*) External—prepared for local application	(*a*) & (*b*) Insanity
172. VIṢADAṂŚA-VASĀ *Ci.* **14,** 48	Fat of the animals of the feline species	(*a*) Inhalation of the fumes when burnt (*b*) External—as local application	(*a*) & (*b*) Piles
173. VIṢADAṂŚA-CARMAN *Ci.* **14,** 49	Hides of animals of the feline species	External—for local application of the fumes when burnt	Piles
174. VṚṢA-RASA *Si.* **12,** 18/6	Meat-juice of the bull	Ingredient of nutritive enema	Sexual debility
175. VṚṢA-VṚṢAṆA *Si.* **12,** 18/2	Testes of the bull	Ingredient of nutritive enema	Sexual debility
176. VYĀGHRA-MĀṂSA *Ci.* **8,** 153	Flesh of the tiger	Internal—in diet	Consumption
177. VYĀGHRA-VASĀ *Ci.* **3,** 305	Tiger's fat	External—as nasal medication	Recurrent fevers

Table 3

Medicinal Plants and Plant Products and their Uses

Name in Caraka; reference, and synonyms if any	Modern and botanical names	Mode of use	Medicinal uses in
1. ĀḌHAKĪ *Sū.* **21,** 26 etc.	Pigeon pea *Cajanus indicus* Spreng.	The pods used alone (cooked) or in prescription (internal)	Obesity, abdominal diseases, poisoning, rheumatism, etc.
2. ĀDITYAVALLĪ *Ci.* **26,** 268	Sun-flower *Helianthus annulus* Linn.	The roots used in prescriptions (external)	Affections of the head, grey hairs
3. AGNIMANTHA *Sū.* **2,** 11, etc. *Syn.*: Anantā, Śrīparṇī, Jayā, Vijayā	*Premna integrifolia* Linn.	The entire plant used in prescriptions (internal)	Constipation, piles, misperistalsis, urinary complaints, etc.
4. AGURU *Sū.* **3,** 28, etc. *Syn.*: Alaktaka, Joṅgaka, Kālāguru, Vāsuka	Aloe-wood tree *Aquilaria agallocha* Roxb.	The powdered wood used alone or in prescriptions (external and internal)	Fever, toxicosis, dermatosis, leucoderma, rheumatism, hiccup, etc.
5. AJAGANDHĀ *Sū.* **2,** 4, etc. *Syn.*: Ugragandhā	*Peucedenum grande* Be.	The seeds used in prescriptions (internal)	Headache, rhinitis, paraplagia, etc.; also as purgative and analgesic
6. AJAKARṆA *Sū.* **3,** 5 etc. *Syn.*: Kālakūṭa, Cirapatraka	White dammer *Vateria indica* Linn.	The dried and pulverized plant used in prescriptions (external and internal)	Obstinate skin diseases, fistula, piles, etc.; as a sedative
7. AJAMODĀ *Sū.* **23,** 20, etc. *Syn.*: Dīpyaka, Markaṭi, Viśālā, Yavānikā, Ajamodaka	Indian celery *Carium roxburghianum* Benth.	The powdered seeds used in prescriptions (internal)	Urinary disorders, indigestion, jaundice, tumours, severe oedema, dysentery, etc.
8. ĀKHUPARṆĪ *Sū.* **3,** 8, etc. *Syn.*: Caṇḍā, Citrā, Mūṣikaparṇī, Dravantī, Mūṣikavāya, Nyāgrodhi, Pratyakśreṇī, Raṇḍā, Sambarī, Upacitrā	*Ipomoea reniformis* Clois.	The powdered and sun-dried roots used in prescriptions (external)	Fistula, piles, ringworms urinary diseases, vaginitis
9. AKṢOṬA *Ci.* **11,** 37, etc.	Walnut tree *Aleurites moluccana* Willd.	The edible nut used in prescriptions (internal)	Anaemia, debility, consumption, senility, etc; as a vitalizer
10. ĀMALAKĪ *Sū.* **4,** 11, etc. *Syn.*: Dhātrī, Kāyasthā, Amoghā, Āmalaka	Emblic myrobolan *Phyllanthus emblica* Linn.	The dried fruit or the fresh juice used in prescriptions (internal)	As tonic in a very large number of diseases
11. AMBAṢṬAKĪ *Sū.* **4,** 9/5, etc. *Syn.*: Ambaṣṭā, Ambauṣṭhā, Pālā, Śreyasī, Veerā, Pāṭhī	Velvet-leaf tree *Cissampelos pareira* Linn.	The root, bark and leaves used in prescriptions (internal)	Assimilation disorders, jaundice, colic pain, etc.
12. AMLIKĀ *Sū.* **27,** 152, etc. *Syn.*: Suktā	Tamarind tree *Tamarindus indicus* Linn.	The ripe fruit used in prescriptions (internal)	Diarrhoea, dysentery, oedema, etc.; as appetizer and digestive stimulant

13. **ĀMRA** *Sū.* **2**, 28, etc. *Syn.*: Sahakāra	Mango tree *Mangifera indica* Linn.	The fresh fruit used alone with other substances (internal); the powdered stone (external)	Assimilation disorders, etc; the stone used for restoring normal colour of skin
14. **ĀMRATAKA** *Ci.* **22**, 35, etc. *Syn.*: Śṛṅgī	Hog-plum tree *Spondias mangifera* Willd.	The fruits as ingredient of sweet jelly	Fainting, neuralgia, painful piles, cardiac disorders, etc.
15. **AṄKOṬA** *Sū.* **27**, 159, etc. *Syn.*: Aṅkola, Nikocaka	Alangy *Alangium lamarckii* Thw.	The fruit as ingredient of medicated ghee	Chronic poisoning, epilepsy, etc.
16. **APĀMĀRGA** *Sū.* **2**, 3, etc. *Syn.*: Pratyakpuṣpī, Śaikharika, Mayūraka	Rough chaff tree *Achyranthes aspera* Linn.	The dried fruits alone or in prescriptions (internal)	Parasitic infection of the head, hemicrania; as errhine
17. **ĀRAGVADHĀ** *Sū.* **1**, 83, etc. *Syn.*: Caturāṅgula, Kṛtamala, Karṇikāra, Sampāka, Prāgraha, Rājavṛkṣa	Indian labarnum. *Cassia fistula* Linn.	The sap, root, bark and leaves used in prescriptions (internal)	Misperistalsis in infants and in chronic skin affections; as diuretic and purgative
18. **ĀRDRAKA** *Vi.* **8**, 142, etc. *Syn.*: Śṛṅgavera, Viśvabheṣaja, Nāgara	Ginger tree *Zingiber officinale* Rosc.	The dried tubers used as spice or in prescriptions (internal)	Abdominal diseases, indigestion, consumption, etc.
19. **ARIMEDA** *Vi.* **8**, 144, etc.	White babool tree *Acacia leucophloea* Willd.	The bark or pith used in decoctions (external)	Dental and oral diseases
20. **ARJAKA** *Sū.* **14**, 32, etc. *Syn.*: Kālāmalaka, Kuṭareka, Sumukhā, Phaṇijjaka	Shrubby basil *Ocimum gratissimum* Linn.	The pulp or juice of the leaves used in prescriptions (external)	Skin infections, oedema, etc.
21. **ARJUNA** *Ci.* **8**, 129, etc. *Syn.*: Dhanañjaya, Kakubha	Arjun tree *Terminalia arjuna* Bedd.	The bark and leaves used in prescriptions (internal)	Diarrhoea, ulcers, cardiac disorders, etc.
22. **ARKA** *Ci.* **23**, 56	Madar tree *Calotropis gigantia* R. Br.	Milky exudations from the bark used in prescriptions (external)	Poisoning, bites, wounds, etc.; as laxative
23. **ARUKA** *Sū.* **25**, 39, etc. *Syn.*: Āluka	Peach tree *Prunus persica* Linn.	The fruits taken alone	Tonic food
24. **ASANA** *Sū.* **25**, 49, etc. *Syn.*: Bījaka, Priyaka	*Terminalia tomentosa* Bed.	A decoction of the bark used in prescriptions (internal)	Rheumatism, fever, urinary diseases, etc.
25. **AŚMANTAKA** *Sū.* **1**, 114, etc. *Syn.*: Ambuda, Kovidāra	Ebony tree *Diospyros montana*	A decoction of the leaves (internal)	Piles, diseases of the head; as emetic, purgative, etc.
26. **AŚOKA** *Sū.* **4**, 18/2	Asoka tree *Saraca indica* Linn.	A decoction of the flowering buds and seeds in prescriptions (internal)	Haemothermia, haemorrhage; as sedative, purgative, etc.
27. **AŚVAGANDHĀ** *Sū.* **3**, 8, etc. *Syn.*: Aśvāvarohikā, Kaṭṭaka, Kākoli	Winter cherry *Withania somnifera* Dunal	The leaves and roots used as ingredients of medicinal oil or ghee	Skin diseases, hiccup, consumption, etc.
28. **AŚVATTHA** *Sū.* **25**, 49, etc. *Syn.*: Bodhivṛkṣa, Sebya, Gajabhakṣa, Kṣīradruma	Sacred fig. *Ficus religiosa* Linn.	The tender roots or the bark, in paste form (internal and external)	Skin infections, wounds etc; as roborant and purgative

TABLE 3

Medicinal Plants and Plant Products and their Uses—*(Contd.)*

Name in Caraka; reference, and synonyms if any	Modern and botanical names	Mode of use	Medicinal uses in
29. **ATASĪ** *Ci.* **8,** 176, etc. *Syn.:* Haimavatī, Umā, Masṛṇā	Linseed tree; flax *Linum usitatissimum* Linn.	The decoction of the seeds and leaves used in prescriptions (internal)	Urinary diseases, anaemia, consumption, etc.
30. **ATIBALĀ** *Ci.* **3,** 267, etc. *Syn.:* Vāṭyāyanī, Vāṭyapuṣpī	Indian sida *Sida rhombifolia* Linn.	Extract of entire plant used in prescriptions (internal)	Fevers, loss of vitality, rheumatic conditions, etc.
31. **ATIVIṢĀ** *Ci.* **3,** 204, etc. *Syn.:* Mahauṣadhā, Prativiṣa, Śuklakāṇḍa, Śvetā	Indian aconite *Aconitum heterophylum* Wall.	The root and tuber used in prescriptions (internal)	Dysuria, fever, leucoderma, obesity, diarrhoea, etc.
32. **ĀTMAGUPTĀ** *Ci.* **18,** 76, etc. *Syn.:* Adhigandhā, Ajadā, Kacchurā, Kapikacchu, Lāṅgulī, Ṛṣabhī, Ṛṣyaproktā, Svaguptā, Śyāmaguptā	Cowage plant *Mucuna pruriens* De.	The decoction of the root and seeds as ingredients of medicated ghee, etc.	Cough, muscular stiffness, facial paralysis, general weakness, etc.
33. **AVĀKAPUṢPĪ** *Ci.* **7,** 114, etc. *Syn.:* Aticchatrā, Chatrā, Karavī, Śatapuṣpā	Indian borage *Trichodesma indicum* R. Br.	Extract of the leaves in oil as ingredient of medicated ghee	Leprosy, dermatosis, piles, etc.
34. **BADARĪ** *Ci.* **14,** 214, etc. *Syn.:* Badara, Kuvala, Sauvira, Phenila	Jujuba fruit tree *Zizyphus jujuba* Linn.	A sweetened decoction of the leaves used in prescriptions (internal)	Piles, loss of voice, giddiness, etc.
35. **BAKULA** *Vi.* **7,** 21, etc. *Syn.:* Keśara, Siṃhakeśara, Sthirā, Kusumā, Viśārada, Dhanvi, Madhupuṣpā	Bakula tree *Mimusops elengi* Linn.	Extract of the bark and root with honey, or in medicated ghee	Helminthiasis, fever
36. **BALĀ** *Sū.* **2,** 13, etc. *Syn.:* Sumagnā, Kharayaṣṭhikā, Balinī, Jayantī, Bhadrabalā, Bhadraudanī	Heart-leaf sida *Sida cordofolia* Linn.	Decoction of the leaves used in prescriptions (internal)	Constipation, splenic disorders; for rejuvenation and for inducing conception
37. **BHADRAMUṢṬĀ** *Ci.* **24,** 145, etc. *Syn.:* Kuruvilva	Nut-grass *Cyperus tubersus* Roth.	Decoction of the roots used in prescriptions (internal)	Cough, spitting of blood, etc.
38. **BHALLĀTAKA** *Sū.* **3,** 5, etc. *Syn.:* Bhallāta, Bhallātakī, Śailabīja, Aruṣkāra	Marking-nut tree *Semecarpus anacardium* Linn.	Decoction of the nuts used in prescriptions (internal and external)	Obstinate skin diseases, poisoning; as vitalizer and for rejuvenation
39. **BHĀRADVĀJI** *Sū.* **4,** 8/2, etc. *Syn.:* Vyāghraṭa	Devil's cotton tree *Abroma augusta* Linn.	Infusion of the leaves and roots used in prescriptions (internal and external)	Debility, female diseases, amenorrhoea, etc.

40. **BHĀRGĪ** *Ci.* **3**, 211, etc. *Syn.*: Aṅgāravallī, Phañji, Brahmayaṣṭhī, Bharangī	*Clerodendron serratum*	The roots used alone, or as ingredient of medicinal oil	Cough, fevers, hard cutaneous eruptions, etc.
41. **BHAVYA** *Ci.* **24**, 136, etc. *Syn.*: Bhava	Indian dillenia *Dillenia indica* Linn.	Extract of fruit as ingredient of medicinal ghee	Urinary calculus, retention of urine, paralysis, etc.
42. **BHṚṄGARĀJA** *Ci.* **18**, 117, etc. *Syn.*: Bhṛṅga, Bhṛṅgāraka, Bhṛṅgāra	Trailing eclipta *Wedelia calendulacea* Less.	The plant-juice taken with honey	Cough, grey hairs and senility
43. **BHŪRJA** *Sū.* **3**, 4, etc. *Syn.*: Bhūrjapatra, Citratvak, Bhuja, Carmī	Bhojapatra tree *Betula bhojapatra* Wall.	The nodes and bark compounded into ointment	Ringworm, acute spreading suppurations, ulcers
*44. **VIBHĪTAKA** *Sū.* **4**, 13, etc. *Syn.*: Akṣa, Vibhītakī, Tusā, Vibhīta, Kāmaghna	Beleric myrobolan *Terminalia belerica* Retz.	The dried fruits used alone or in prescriptions (internal)	Cough, heart-disease, etc; as purgative and blood-cleanser
45. **BĪJAPŪRAKA** *Ci.* **5**, 166, etc. *Syn.*: Bījapūra, Mātulaṅga, Keśarāmla	Adam's apple tree *Citrus medica* Linn.	The fruit taken alone or in prescriptions (internal)	Colic pain, alcoholism; as appetizer
46. **BILVA** *Sū.* **2**, 19, etc. *Syn.*: Śrīphala, Śailapatra, Tripatra, Mahāphala Mahākapittha	Bengal quince, *Aegle marmelos* Corr.	The fruit used alone or in prescriptions (internal)	Diarrhoea, constipation; in rejuvenation
47. **BIMBĪ** *Sū.* **1**, 78, etc. *Syn.*: Tuṇḍi, Piluparṇī, Oṣṭhī, Bimba, Bimbaka, Raktaphala, Tiktatuṇḍī	Kunch tree *Cephelendra indica* Naud.	The dried root or juice used in prescriptions (internal and external)	Hard tumours, piles; as purgative and emetic
48. **BRĀHMĪ** *Sū.* **8**, 58, etc. *Syn.*: Vayasthā, Surasā, Somavallarī, Subarcalā	Indian pennywort *Herpestis monniera* H. B. & K.	The dried and powdered plant used in prescriptions (internal)	Senile decay, loss of memory; as preventive of abortion
49. **BṚHATĪ** *Ci.* **19**, 26, etc. *Syn.*: Mahatī, Hiṅgulī Prasaha, Bṛhatikā, Vartakī, Kāntā.	Indian nightshade *Solanum indicum* Linn.	The leaves and roots used in prescriptions (internal and external)	Diarrhoea, toxicosis, pain and oedema of the vagina
50. **CANDANA** *Ci.* **1/1**, 148, etc. *Syn.*: Malayaja, Gandhasāra, Śītahima	Sandal wood tree *Santalum album* Linn.	The powdered wood or paste in prescriptions (internal and external)	Diarrhoea, vomiting, chronic skin diseases, etc.
51. **CARAṬĪ** *Ci.* **9**, 45, etc.	*Ionidium suffriciticosum* De.	The plant used as ingredient of medicinal ghee	Insanity, epilepsy; for proper growth in childhood
52. **CAVIKĀ** *Ci.* **18**, 158, etc. *Syn.*: Cavyā, Cavi, Nākulī, Cavyaka	*Piper chaba* Hunter	Decoction of the roots and dried fruits used for medicinal ghee	Consumptive cough, indigestion, change of voice, emaciation, etc.
53. **CILLI** *Sū.* **27**, 98	Wild spinach *Chenopodium album* Linn.	Cooked as a pot-herb	As aid to elimination
54. **CIRABILVA** *Ci.* **3**, 267, etc. *Syn.*: Naktamāla, Putīparṇa	Indian beech. *Pongamia glabra* Vent.	Decoction of the sprouts used in prescriptions (internal)	Fever, disorders of the spleen

TABLE 3

Medicinal Plants and Plant Products and their Uses—(Contd.)

Name in Caraka; reference, and synonyms if any	Modern and botanical names	Mode of use	Medicinal uses in
55. **CIRMATA** *Ci.* **19**, 32, etc. *Syn.:* Kṣetracirmita, Pāṇḍuphala, Pāṭhyā	*Cucumis melo* Linn.	The seeds used in decoction. The fruit taken alone or as ingredient of sweet drink	Dysentery; as laxative
56. **CITRAKA** *Sū.* **2**, 28, etc. *Syn.:* Pāṭhi, Dāruṇa, Raktacitraka, Uṣaṇa	White lead wort *Plumbago zeylonica* Linn.	Decoction of the roots and leaves used in prescriptions for internal use	Urinary diseases, anaemea, etc.; as laxative and digestive
57. **CORAKA** *Sū.* **3**, 24, etc. *Syn.:* Parṇacoraka, Phalacoraka, Kṣemaka	Indian angelica tree *Angelica glauca* Edgew.	The roots and stalks used in internal and external prescriptions	Headache, epilepsy, hiccup, etc.
58. **CUKRĀ** *Ci.* **8**, 131	Wood sorrel tree *Rumex vesicarius* Linn.	The extracted juice as ingredient of vegetable soup	Anorexia
59. **CUÑCŪPARṆIKĀ** *Sū.* **27**, 100	Coxcomb plant. *Corcorus olitorius* Linn.	Cooked as a pot-herb	As aid in elimination
60. **DĀḌIMA** *Sū.* **2**, 20, etc. *Syn.:* Dāḍimba, Raktapuṣpa, Karaka	Pomegranate tree *Punica granatum* Linn.	The fruit-juice taken alone or in prescriptions	Diarrhoea, cough, oedema, etc.; as digestive and anti-emetic
61. **DANTAŚAṬHA** *Ci.* **3**, 267, etc. *Syn.:* Rocanaka, Jambhaka	Lemon tree *Citrus medica* Linn. (Variety: *C. limonum* or *acida*)	The fruit-juice taken alone or with drinks	Fever; as digestive
62. **DANTĪN** *Sū.* **2**, 9, etc. *Syn.:* Udumbaraparṇī, Nikumbha, Makulaka, Citrā	Wild croton *Baliosperum montanum* Muell & Arg.	The sun-dried roots used in prescriptions for internal use	Oedema, jaundice, stomach complaints
63. **DARBHA** *Sū.* **4**, 12, etc. *Syn.:* Kuśa, Kṣurapatra, Yagnika	Large variety of sacrificial grass *Eragrotis cynosuroides* Beauv.	The extract of the grass used in prescriptions for internal use	Senility, wasting diseases, etc; for increasing lactation
64. **DĀRUHARIDRĀ** *Sū.* **4**, 11, etc. *Syn.:* Pītadru, Pītadāru, Pītatvak, Hemakānta	Indian barberry *Berberis asiatica* Roxb.	The extract of the plant used in prescriptions for internal use	Haemorrhage, piles, pruritus, alopecia, etc.
65. **DEVADĀRU** *Ci.* **16**, 48, etc. *Syn.:* Śatapatraka, Suradruma, Devadruma	Deodar tree *Cedras lond.* (Varieties: *C. libani* Barrl & *C. deodara*) H.K. & F.	The dried leaves and the extract of the wood and roots used in prescriptions for internal use	Headache, intestinal worms, urinary diseases, menorrhagia, fistula, etc.

66. **DHĀMĀRGAVA** *Ka.* **4**, 1, etc. *Syn.:* Karkoṭakī, Koṭhaphala, Mahājālinī, Rājakośātakī	Sponge-gourd *Luffa aegyptica* Mill.	The fruits, flowers and tender leaves used in decoctions for internal use	Cough, toxicosis, phlegm; as purgative and emetic
67. **DHANVAN** *Ci.* **3**, 258, etc. *Syn.:* Dhanurvṛkṣa	Indian linden tree *Grewia tillioefolia* Vahl.	The powdered bark used internally in decoctions and externally in ointments	Fever, urinary diseases
68. **DHĀNYAKA** *Ci.* **3**, 182, etc. *Syn.:* Tumburuka, Dhanyā, Dhāni, Dhanika, Bījadhānya, Kustumbura	Coriander plant *Coriandrum sativum* Linn.	The entire plant used in prescriptions for internal use	As digestive, diaphoretic and an aid to virility
69. **DHĀTAKI** *Sū.* **4**, 15, etc. *Syn.:* Bahupuspikā, Dhātrī, Kumuda, Kuñjara, Tāmrapuṣpī, Pārvatī	Fulsee flower tree *Woodfordia floribunda* Salisb.	The flowers as ingredient of sweetened decoctions for internal use	Fever, haemothermia; as intestinal astringent
70. **DHAVA** *Sū.* **3**, 3, etc. *Syn.:* Madhuravalka, Madhuratvak, Vakavṛkṣa	Crane tree *Anogeissus latifolia* Wall.	The resin as ingredient of medicinal oil for external application	Chronic skin diseases, senility, dysuria, snake-bites, etc.
71. **DRĀKṢĀ** *Ci.* **5**, 123, etc. *Syn.:* Rasa, Rasālā, Madhurasā, Kāśmīrikā	Grape vine *Vitis vinifera* Linn.	The shoots used in prescriptions; the fruits used alone or in drinks	Haemothermia, cardiac disorders, cough, etc.
72. **DUGDHIKĀ** *Ci.* **8**, 131, etc. *Syn.:* Kṣiriṇī, Kṣīri, Svāduparṇī, Dugdhi	*Oxystelma esculentum* R. Br.	Ingredient of vegetable soup	Diarrhoea; painful bleeding piles, etc.; as roborant
73. **DUḤSPARŚĀ** *Ci.* **24**, 166	Khorasan thorn *Alhagi maurorum* Desu.	Infusion in boiling water used in prescriptions (internal)	Acute alcoholism
74. **DŪRVĀ** *Ci.* **3**, 258, etc. *Syn.:* Bhārgavī, Śataparvā, Tiktaparvā, Śatavīryā, Latā, Śītā	Couch grass *Cynodon dactylon* Pers.	The grass leaves as ingredient of medicinal oil	Fever, neuralgic pain, etc.; as haemostatic
75. **ELA** *Sū.* **2**, 4, etc. *Syn.:* Bhṛṅgaparṇikā, Tuttha, Kṣudrela, Sukṣmaila	Lesser cardamom plant *Elettaria cardamomum*	The spice used alone or in prescriptions (internal)	Rhinitis, hemicrania, pleural affections, etc.
76. **ELAPARṆĪ** *Ci.* **8**, 131	Kulanjan plant *Alpinia galanga* Swartz	Ingredient of vegetable soup	Diarrhoea
77. **ELVALUKA** *Ci.* **14**, 159	Cherry tree *Prunus cerasus* Linn.	The fruits and roots used in sweetened decoctions (internal)	Abdominal diseases, paralytic conditions, intestinal obstruction, etc.
78. **ERAKĀ** *Sū.* **3**, 24, etc. *Syn.:* Gundrā, Simbīgundrā, Śṛṅgaverabhamūlaka	Elephant grass *Typha elephantina* Roxb.	The decoction of the roots used in prescriptions (internal)	Headache, rheumatic conditions
79. **ERAṆḌA** *Sū.* **2**, 12, etc. *Syn.:* Citrabīja, Tripuṭi, Tribīja, Cancū, Maṇḍa, Uruvaka	Castor oil plant *Ricinus communis* Linn.	The expressed oil used alone or in prescriptions (internal)	Misperistalsis; as purgative

TABLE 3

Medicinal Plants and Plant Products and their Uses—(Contd.)

Name in Caraka; reference, and synonyms if any	Modern and botanical names	Mode of use	Medicinal uses in
80. **ERVĀKA** *Ci.* **26**, 52, etc. *Syn.:* Lomaśa, Toyaphala, Lomaśakāṇḍa, Vṛhatphala	Melon cucumber plant *Cucumis utilitisimus* Linn.	The seeds used in prescriptions (internal)	Urinary calculus, dysuria, diseases of the bladder
81. **GAJAPIPPALĪ** *Ci.* **12**, 41, etc. *Syn.:* Karipippalī, Kuñjarapippalī, Kapivallikā, Hastidantī	Elephant pepper plant *Scindapsus officinalis* Schott	The powdered dried fruit used in prescriptions (internal)	Piles, oedema, anaemia
82. **GAVEDHUKA** *Sū.* **2**, 25, etc. *Syn.:* Gāvedhu, Kṣudra	Job's tears *Coix lachryma Jobi* Linn.	The seeds used alone or in infusion; or cooked as cereal	Emaciation and debility
83. **HAṂSAPĀDĪ** *Ci.* **23**, 220, etc. *Syn.:* Godhāpādikā, Haṃsavatī, Haṁsapādikā, Vikrāntā	Maidenhair *Adiantum capillusveneris* Linn.	The seeds used in prescriptions (external)	Suppurations due to poisonous bites; rheumatic conditions
84. **HAPUSA** *Sū.* **23**, 20, etc. *Syn.:* Habusa, Vipusa, Vigandhika	Juniper tree *Juniperus communis* Linn.	The seeds in decoction or as ingredient of medicinal ghee (internal)	Female diseases, dysuria, throat-spasms, etc.
85. **HARIDRĀ** *Sū.* **4**, 11, etc. *Syn.:* Priyaka, Haridruma	Turmeric plant *Curcuma longa* Roxb.	The dried tubers used in prescriptions (external and internal)	Dermatosis, toxicosis, senility, impaired vision, etc.
86. **HARĪTAKĪ** *Sū.* **13**, 92, etc. *Syn.:* Amṛta, Śivā, Dibyā, Prāṇadā, Vanatiktā, Cetakī, Jivanīkā, Abhayā	Chebulic myrobolan *Terminalia chebula* Rtz.	The dried fruits and seeds taken alone or in prescriptions (internal)	Dermatosis, oedema, urinary diseases; as general tonic, blood purifier and purgative
87. **HIṄGU** *Sū.* **2**, 29, etc. *Syn.:* Hiṅguka	Asafoetida plant *Ferula tournex* Linn. (Varieties: *F. foetida* Regil, *F. narthex* Boiss)	The dried fruits as ingredient of gruel	Cough, dysuria, dermatosis, etc.; as laxative, digestive, and rejuvenant
88. **HIṄGUPARṆĪ** *Ci.* **9**, 57, etc.	Emetic nut *Randia dumetorum* Lamk.	A decoction of the nuts used in prescriptions (external and internal)	Inguinal swellings, spleen diseases, helminthiasis, etc.
89. **IKṢU** *Sū.* **4**, 10, etc.	Sugarcane *Saccharum officinarum* Linn.	The juice used as drink or as ingredient of mixed drink; the roots used in prescriptions	Loss of voice, vomiting, morbid thirst; for longevity; as a roborant
90. **IKṢURAKA** *Ci.* **4**, 78, etc. *Syn.:* Kṣuraka, Trikṣura, Vajra, Kokilakṣa	Long-leaved barberia *Asterecantha longifolia* Nees	A decoction of the leaves and roots used alone or in prescriptions (internal)	Urinary calculus, haemothermia; as an aid to virility

91. **INDRAVĀRUṆI** *Ci.* **14,** 138	Bitter cucumber plant *Citrullus colocynthis* Schrad.	Decoction of the fruits used in prescriptions (internal)	Piles
92. **IṄGUDĪ** *Ci.* **1/3,** 15, etc. *Syn.:* Bhallakivṛkṣa, Tiktaka, Viṣagandhaka, Tailaphala	Zachum oil plant *Balanites roxburghi* Plarch.	The alkali from the plant-ash used in prescriptions	Dermatosis, urinary diseases; for rejuvenation
93. **ITKAṬA** *Sū.* **4,** 12/17, etc.	Prickly sesban *Sesbania aculeata* Pers.	Decoction of the grass roots as ingredients of prescriptions and ointment (internal and external)	Fever; for increasing lactation
94. **JALAPIPPALĪ** *Sū.* **27,** 171	Poison buttercup *Ranunculus sceleratus* Linn.	The entire plant made into paste for local application	Ulcers
95. **JAMBU** *Sū.* **2,** 28, etc. *Syn.:* Jambula, Mahājambu, Rājajambu, Kākajambu	Jambol tree *Eugenia fruiticosa* Roxb. or *Eugenia jambolana* Linn.	Seeds, leaves and the stones of the fruits used in decoctions, the bark used in prescriptions (internal)	Diarrhoea, consumption, nausea; as astringent
96. **JĀTIPHALA** *Ci.* **3,** 207, etc.	Nutmeg trees *Myristica fragrans* Houtt.	The fruits used in preparing medicinal oil (external)	Hard cutaneous eruptions, pruritus, poisoning, etc.
97. **JAYĀ,** *Ci.* **9,** 45 *Syn.:* Jayantī	Sesban tree *Sesbania aegyptica* Pers.	A decoction of the entire plant used in prescriptions (internal)	Insanity, strokes, epilepsy
98. **JIMŪTA** *Sū.* **1,** 81, etc. *Syn.:* Jimūtaka, Garagari, Veṇī, Devatāḍaka	Bristly luffa *Luffa echinata* Roxb.	The flowers and fresh fruits used in prescriptions; the powder of the dried fruit taken alone	For emesis and enema in fever, consumption, anaemia, etc.
99. **JIṄGINĪ** *Ci.* **30,** 83, etc.	Indian ash tree *Odina wodier* Roxb.	Decoction of the leaves as ingredient of astringent douche	Morbid discharges from vagina
100. **JĪRAKA** *Ci.* **2/1,** 43, etc. *Syn.:* Jirā, Ajaji	Cumin plant *Cuminum cyminum* Linn.	The seeds used in prescriptions (internal)	General tonic for all ailments; as an aid to virility
101. **JĪVANTĪ** *Sū.* **3,** 25, etc. *Syn.:* Hemavatī, Jīvanīya, Jīvapuṣpa	Cork swallow-wort *Dendrobium macrei* Linn.	The fruits taken alone or as ingredient of unguent or decoction	Snake-bite, chest-congestion, cough; for rejuvenation and longevity
102. **JŪRṆĀJHYĀ** *Sū.* **21,** 25, etc.	Sorghum *Sorghum vulgare* Pers.	Cooked as cereal food	Obesity; as cooling and astringent
103. **JYOTIṢMATĪ** *Sū.* **1,** 38, etc. *Syn.:* Durmada, Jyotirlatā; Pārāvatapadī	*Cardiospermum haliocalum* Linn.	A decoction of the roots or seeds used in prescriptions (internal)	Headache, rhinitis, fainting; as purgative
104. **KADALĪ** *Ci.* **3,** 268, etc. *Syn.:* Rambhā, Sakṛtphala	Banana tree *Musa sapientum* Linn.	The fermented fruit or the alkaline extract of the ashes used in prescriptions; the pith, bulb and roots also used (internal)	Dermatosis, leucoderma, piles, urinary diseases, abdominal diseases, blood-vomiting
105. **KADAMBA** *Ci.* **18,** 154 *Syn.:* Nīpa, Sidhupuṣpa, Bhṛṅgavallabha, Bhūmikadamba	Kadamba or wild cinchona plant *Anthocephalus cadamba* Mig.	The resin or an extract of the bark used in prescriptions (internal)	Urinary anomalies, rheumatism; as sedative

TABLE 3

Medicinal Plants and Plant Products and their Uses—(Contd)

Name in Caraka; reference, and synonyms if any	Modern and botanical names	Mode of use	Medical uses in
106. **KADARA** *Sū.* **25,** 49, etc. *Syn.:* Varvara	Gum arabic tree *Acacia arabica* Willd.	The gum or milky exudate or a decoction of the leaves used in prescriptions (internal)	Urticaria, fever, etc.
107. **KĀKAḌUMBARIKĀ** *Ci.* **7,** 170	Redwood fig tree *Ficus hispida* Linn.	A paste of the fruits used in prescriptions (external)	Leucoderma
108. **KĀKAMĀCI** *Sū.* **27,** 89, etc. *Syn.:* Kākamācikā, Kākāhyā, Kākamātā	Black nightshade *Solanum nigrum* Linn.	The entire plant cooked and used as vegetable	Skin lesions, oedema, etc.; as aphrodisiac
109. **KĀKANĀSA** *Ci.* **18,** 40, etc. *Syn.:* Kākatuṇḍaphala, Vāyasī	Indian perry *Hygrophilia augustifolia* R. Br.	A paste of the leaves used in ointments or in medicated ghee (internal)	Hard nodules on the skin, jaundice, cough, consumption, etc.
110. **KĀKĀṆDOLĀ** *Sū.* **27,** 34	Sword bean *Canavalia ensiformis* De.	The lentils used as food	As an aid to elimination, as an aphrodisiac and an aid to virility
111. **KAKKOLA** *Ci.* **26,** 210, etc. *Syn.:* Takkola, Sthūlamarica, Koraka, Kaṅkolaka	Cubebs plant *Piper cubebe* Linn.	A paste of the fruits as ingredient of medicinal oil or mouth wash	Oral and dental diseases, fevers, loss of voice, etc.
112. **KALAMBA** *Sū.* **27,** 100	Wild pot-herb *Ipomoea reptans* Poir.	Cooked as a pot-herb	As a digestive, a cooling agent, and an aid to elimination
113. **KĀLĀNUSĀRIKĀ** *Ci.* **26,** 243	*Ichnocarpus frutescens* R. Br.	An extract of the leaves as ointment (external)	All eye-diseases; as a promotor of eyesight
114. **KĀLAŚĀKA** *Sū.* **27,** 91, etc. *Syn.:* Kālaka	Jute plant *Corchorus capsularis* Linn.	The cooked leaves (internal)	Poisoning, oedema, intestinal stasis, etc.
115. **KALĀYA** *Ci.* **20,** 37, etc.	Chickling-vetch lentil *Lathyrus sativus* Linn.	A decoction of the leaves (internal); the paste of the lentil for local application	Vomiting, nausea, suppurated wounds
116. **KĀLEYAKA** *Sū.* **3,** 26	Yellow sandal tree *Santalum flavum* Linn.	A paste of the finely divided wood as ointment (external)	As a cooling agent
117. **KAMALA** *Sū.* **3,** 24, etc. *Syn.:* Padma, Paṅkaja, Nalika, Ambuja, Kokanada, Puṇḍarīka	East Indian lotus plant *Nellumbium speciosum* Willd.	The paste of the petals as ingredient of an unguent; cold aqueous extract used as drink	Nasal haemorrhage, dysuria

118. **KAMPILLAKA** *Sū.* **1,** 83	The "kamala" dye plant *Mallotus phillippinensis* Muell.	Extract as ingredient of medicinal oil and in internal prescriptions	Chronic skin diseases, oedema; as purgative
119. **KANAKAPUṢPĪ** *Ci.* **7,** 167	Golden thistle or yellow thistle *Euphorbia thomsoniana* Boiss.	The petals as ingredient of ointment	Leucoderma
120. **KAṆṬAKĀRI** *Sū.* **2,** 22, etc. *Syn.:* Kaṇṭakārikā, Vyāghrī	Wild egg-plant *Solanum anthocarpum* Schr. & Wendl.	Extract of the entire plant and fruits in prescriptions (internal)	Dysuria, misperistalsis, etc.; for rejuvenation
121. **KAPITANA** *Ci.* **15,** 126	Flowering peepul tree *Thespesia populnea* Solard.	Extract of the root and bark used in medicated ghee	Bleeding piles, pain in the rectal region, etc.
122. **KAPITTHA** *Ci.* **6,** 35, etc. *Syn.:* Dantaphala, Gandhaphala	Wood-apple tree *Feronia elephantum* Corr.	Powdered leaves made into linctus with honey; the fruits used alone or in prescriptions (internal)	Urinary disorders, chronic skin diseases, toxicosis, etc.
123. **KARAMARDA** *Vi.* **8,** 140, etc. *Syn.:* Jātīpuṣpa, Karamardaka	Bengal currant *Carissa carandas* Linn.	A decoction of the fruits used in prescriptions (internal)	Disorders of the first humor
124. **KARAÑJA** *Sū.* **3,** 3, etc.	Indian beech tree *Pongamia glabra* Vent.	The leaves soaked in ox-bile and made into ointment; dried powder in prescriptions (internal)	Dermatosis, pain in stomach and spleen, ear-ache, etc.
125. **KĀRAVELLIKĀ** *Vi.* **8,** 143	Bitter-gourd plant *Momordica charantia* Linn.	The decoction of the fruits and leaves as ingredient of enema or in prescriptions (internal)	Cough, haemothermia, etc.
126. **KARAVĪRA** *Sū.* **3,** 15, etc. *Syn.:* Vīrā, Vīraka, Dibyapuṣpa	Roseberry spurge plant *Nerium odorum* Soland.	A decoction of the root-bark in water in prescriptions (internal)	Skin diseases, toxicosis, wounds, etc.
127. **KARCURA** *Sū.* **27,** 155	Zedoary tree or Sati plant *Curcuma zedoaria* Rosc.	The fruit without the rind taken alone	Cough, hiccup piles, etc; as appetizer
128. **KARĪRA** *Ci.* **30,** 82, etc. *Syn.:* Tīkṣṇakaṇṭaka	Caper plant *Capparis aphylla* Roth.	The decoction of the leaves as ingredient of vaginal douche, or rectal enema	Morbid discharges from the vagina; retention of urine, stool and flatus
129. **KARKANDHU** *Sū.* **4,** 13, etc. *Syn.:* Karkandhuka	Wild jujuba plant *Zizyphus ecroplia* Mill.	A decoction of the plant used in prescriptions or in warm enema (internal and external)	As purgative
130. **KARKAṬAŚṚṄGĪ** *Ci.* **17,** 101, etc. *Syn.:* Karkaṭākhya, Kuliraśṛṅgāya	*Rhus suceedanea* Linn.	The powdered nut in prescriptions (internal)	Cough, hiccup, nausea
131. **KARKAṬAKĪ** *Sū.* **27,** 100	*Momordica cochinelinesis* Spreng.	The cooked fruit used as an article of food	As an aid to elimination

TABLE 3

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132. **KARKOṬAKA** *Ci.* **3,** 189	*Momardica diocia* Roxb.	Leaves and fruits cooked as vegetables	Fever; as an astringent
133. **KĀRPĀSA** *Ci.* **26,** 69, etc. *Syn.*: Kārpāsī, Picū	Levantine cotton tree *Gossypium herbaceum* Linn.	A decoction of the root-bark used in prescriptions (internal and external)	Dysuria, scabies, and scrofula
134. **KARPŪRA** *Ci.* **28,** 153	*Limoniphila gratissina* Blume	The entire plant compounded into medicinal oil (internal)	Consumption, sallow complexion; as vitalizer
135. **KARVUḌĀRA** *Sū.* **27,** 99, etc. *Syn.*: Kovidāra, Śvetakāñcana, Vanarāja	White mountain ebony *Bauhinia racemosa* Lamk.	As an article of food	Hemothermia, haemorrhage; as an aid to elimination
136. **KĀŚA** *Sū.* **4,** 12, etc. *Syn.*: Śāradā, Kāśī, Camarapuṣpikā	Thatch grass *Saccharum spontaneum* Linn.	A decoction of the grass (internal)	Senility, fever; as promoter of lactation
137. **KĀŚAMARDA** *Ci.* **18,** 117, etc. *Syn.*: Kāsāri, Kāśamardaka	Senna sophera plant *Cassia sophera* Linn. or *Senna purpuria* Roxb.	The entire plant as an ingredient of medicated ghee	Cough, female diseases, etc.
138. **KĀŚMARĪ** *Ci.* **26,** 167 *Syn.*: Kāśmarya, Kāśmīrī, Mahābhadra, Bhadra	White teak *Gmelina arborea* Linn.	A paste of the leaves as ingredient of medicated ghee	Stiffness of the back, facial paralysis, hoarseness, etc.
139. **KASERUKA** *Sū.* **3,** 21, etc. *Syn.*: Kaseru	Tiger-nut or rush-nut tree *Seirpus grossus* Linn. or *S. kysoor* Clarke	A paste of the tubers (external and internal)	Rheumatism, haemothermia, wasting diseases, etc.
140. **KAṬAKA** *Ci.* **26,** 251, etc. *Syn.*: Ambuprasādana, Tiktamarica, Toyaprasādaphala	Clearing-nut tree *Strychus potatorum* Linn.	A paste of the seeds used in ointment	Eye-diseases, failing eyesight, discharges from eyes, etc.
141. **KAṬABHĪ** *Ci.* **9,** 70, etc. *Syn.*: Pāṭalī, Kṣudraśyāmā	White siris *Albizzia procera* Benth.	The powdered bark made into a paste with goat's urine along with other ingredients (internal)	Intestinal worms, toxicosis, oedema, urinary disorders, etc.
142. **KAṬPHALĀ** *Sū.* **28,** 152	Bay-berry tree *Nyrica nagi* Thunb.	The bark used in sweetened decoctions (internal)	Bronchial asthma, cough, diarrhoea, etc.
143. **KAṬṬAPHALA** *Ci.* **28,** 152	Musk mallow *Hibiscus abelmoschus* Linn.	A decoction of the seeds used in prescriptions (internal)	Vomiting, spleen disorders, pectoral lesions, etc.

144. **KAṬṬAROHIṆĪ** *Sū.* **23,** 19, etc. *Syn.:* Śataparvā, Kaṭuka, Śakulādani, Ariṣṭa, Aśokarohiṇya	Hellebore plant *Picrorhiza kurrooa* Royle	A decoction of the roots and tubers in prescriptions (internal)	Dermatosis, jaundice, piles; as a purifying agent for breast-milk
145. **KAṬVAṄGA** *Sū.* **25,** 40, etc.	Indian calosanthes tree *Ailanthus excelsa* Roxb.	A decoction of the leaves in prescriptions (internal)	Menstrual disorders, pectoral lesions, diarrhoea, etc.
146. **KEŚARA** *Ci.* **2/1,** 32, etc. *Syn.:* Nāgakeśara, Keśarī, Tuṅgī	Fragrant poon *Ochrocarpus longifolius* Hook & Benth.	The powdered, dried buds used in prescriptions (internal)	Irregular, fever, jaundice, etc.
147. **KHADIRA** *Ci.* **4,** 70, etc. *Syn.:* Somavalka	Catechu tree *Acacia catechu* Willd.	The flowers or the fermented wine from the resinous exudate used in prescriptions (internal)	Haemothermia, urinary disorders, blood poisoning
148. **KHARJURA** *Sū.* **23,** 38, etc.	Date palm *Phoenix sylvestris* Roxb.	The dried fruits as food or in fermented liquors	Alcoholism, wasting diseases, trauma, erysipelas, etc.
149. **KIRĀTATIKTA** *Sū.* **4,** 12, etc. *Syn.:* Kirātatiktaka, Kaṭutikta, Tṛṇanimba	Chiretta plant *Swertia chirata* Ham.	The entire plant used in paste or decoction (internal)	Fever; for purification of blood and breast-milk
150. **KODRAVA** *Sū.* **21,** 25, etc.	Common millet *Paspalum scrobiculatum* Linn.	Used as cereal food	Piles, cough, obestity, etc.
151. **KAIDARYA** *Sū.* **4,** 10, etc. *Syn.:* Kaitarya	Curry-neem plant *Murraya koenighi* Spreng.	The leaves and barks used in decoctions (internal)	Intestinal worms, dysuria, hoarseness
152. **KOṢĀMRA** *Ci.* **30,** 82	Gum lac tree *Schleichera trijuga* Willd.	The expressed oil used as ingredient of medicated applications (external)	All morbid discharges from the vagina
153. **KRAMUKA** *Sū.* **25,** 49, etc. *Syn.:* Jīrṇapatra	Betel-nut *Areca catechu* Linn.	A paste of the nut with sandal wood, or in decoction with other drugs (internal)	Bronchial asthma, anaemia, anorexia, skin diseases
154. **KṚṢṆAŚAIREYAKA** *Ci.* **26,** 268	Purple nail-dye plant *Barleria strigosa* Willd.	A decoction of the plant, used in prescriptions (external)	All eye-affections, skin discolorations, etc.
155. **KṚṢṆAŚAṆA** *Ci.* **26,** 269	Flax-hemp plant *Crotalaria verrucosa* Linn.	The juice of the plant, used in prescriptions (external)	As above
156. **KṚTAVEDHANA** *Sū.* **1,** 83, etc. *Syn.:* Koṣāṭaki, Mṛdaṅgaphala	Bitter luffa plant *Luffa acutangula* Roxb.	The fruits and seeds used in prescriptions (internal); the flowers fermented as wine	As purgative and emetic; as tonic
157. **KṢAVAKA** *Vi.* **7,** 17, etc. *Syn.:* Kṣava, Ugra	Sneeze-wort *Centipeda orbicularia* Lour.	Extract of the seeds and leaves, used in prescriptions (internal and external)	Helminthiasis, fever, dermatosis, etc.

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Medicinal Plants and Plant Products and their Uses—(Contd.)

Name in Caraka; reference, and synonyms if any	Modern and botanical names	Mode of use	Medicinal uses in
158. **KṢĪRĀVALLĪ** *Vi.* **8,** 139	Ring coronet tree *Holostemma rheedii* Wall.	A decoction of the leaves in milk, used as ingredient of medicinal ghee	Disorders of the second humor
159. **KṢĪRAVIDĀRĪ** *Vi.* **8,** 139 *Syn.*: Kṣīralatā	Milky yam *Ipomoea digitata* Linn.	As above	As above
160. **KULATTHA** *Sū.* **2,** 12, etc. *Syn.*: Kulittha, Kulatthikā	Horse-gram *Dolichos biflorus* Linn.	The cooked pulse used as food or as paste in prescriptions (internal)	Misperistalsis, fever, emaciation, cough, etc.
161. **KUMĀRAJĪVA** *Sū.* **27,** 100	*Putranijiva roxburghii* Wall.	The leaves used as vegetable	As an aid to elimination
162. **KUMMI** *Vi.* **8,** 144	Saffron mango tree *Careya arborea* Roxb.	A decoction of the leaves, used in prescriptions (internal)	Disorders of the third humor; as astringent and purgative
163. **KUMUDA** *Sū.* **27,** 117, etc. *Syn.*: Aravinda, Śvetajalaja	White water-lily *Nymphaea alba* Linn.	The seeds and flowers taken raw	Urinary diseases, alcoholism; as intestinal astringent
164. **KUṄKUMA** *Ci.* **23,** 55, etc. *Syn.*: Rudhira, Vadrika, Kāśmīra, Agniśikhā	Saffron plant *Crocus sativa* Linn.	The powdered tendrils as ingredient of pills	Cataract, dimness of vision, night-blindness
165. **KUṢMĀṆḌA** *Sū.* **27,** 102	White gourd plant *Benincasa cerifera* Savi.	Cooked as food; the plant used as vegetable	As a digestive and as an aid to elimination
166. **KUṢṬHA** *Sū.* **3,** 4, etc. *Syn.*: Kuṭhika, Puṣkara, Kāśmīraja	Indian costus or Orris root *Saussurla lappa* Clark or *Iris florentina* Linn.	The roots soaked in ox-bile for external application; decoction or powder in prescriptions (internal)	Anaemia, chronic skin diseases, toxicosis, colic pain, cardiac disorders, etc.
167. **KUSTUMBAKA** *Vi.* **7,** 17, etc. *Syn.*: Dhanya, Dhānyaka, Tumburuka	Coriander plant *Coriandrum sativum* Linn.	Used in prescriptions and in enemas (internal and external)	Piles, dermatosis, intestinal worms
168. **KUSUMBHA** *Sū.* **13,** 10, etc. *Syn.*: Laṭvā	Safflower plant *Carthamus tinctorius* Linn.	The seeds or oil used as food or cooking medium; also for local application	Phlegm, urinary gravel, dysuria, insect-bites
169. **KUṬAJA** *Sū.* **1,** 83, etc. *Syn.*: Kurci, Vatsaka, Girimallikā, Kuṭajatvaka, Sakra	Kurchi plant *Holarrhena antidysentrica* Wall.	The bark and seeds used in prescriptions (internal and external)	Skin diseases, haemorrhage, fever, assimilation disorders; as purgative and emetic
170. **KUTUMBAKA** *Sū.* **27,** 98, etc.	*Leucas linifolia* Spreng.	The plant cooked as pot-herb	As an aid to elimination

171. **KŪVALA** *Sū.* **4**, 10, etc.	Small jujuba plant *Zizyphus sativus* Gaertn.	The fruits taken alone	As cordial and purgative
172. **LAKṢMAṆA** *Sū.* **27**, 101	Mandugora plant *Atropa mandragora* Linn.	Cooked as pot-herb	Constipation
173. **LĀMAJJAKA** *Sū.* **3**, 29	Geranium grass *Andropogon iwarancusya* Jons.	The powdered and dried leaves for external application	Minor skin eruptions, body-odour
174. **LĀṄGALIKĪ** *Sū.* **8**, 38	Superb lily *Ipomoea pestigridis* Linn.	Inhalation of the fresh or dried powdered petals; compounded with cow's urine (internal)	Labour pain, pruritus, dermatosis as laxative
175. **LASUNA** *Sū.* **2**, 3	Garlic plant *Allium sativum* Linn.	The spice used alone or in prescriptions (internal and external)	Rhinitis, skin diseases, intestinal worms, leprosy, etc.; as aphrodisiac
176. **LAVALĪ** *Sū.* **27**, 145	Star gooseberry tree *Phyllanthus distichus* Muell.	The fruits used alone	As astringent, cordial and appetizer
177. **LAVAṄGA** *Ci.* **26**, 210, etc. *Syn.*: Lavaṅgaka	Clove plant *Eugenia caryophyllata* Thunberg	The dried flowers alone or in medicinal oils	Cough, hiccup, vomiting, inflammatory conditions of the mouth and throat, halitosis
178. **LODHRA** *Sū.* **3**, 5, etc. *Syn.*: Lodh, Tilvaka	Lodh tree *Symplocos racemosa* Roxb.	The dried root-bark used in internal and external prescriptions	Obstinate skin diseases, haemothermia, urinary diseases; as intestinal astringent
179. **LONIKĀ** *Ci.* **14**, 123; *Syn.*: Lonā, Lonī	Parschane plant *Portulaca oleracea* Linn.	The plant cooked as vegetable	Piles
180. **MADANA** *Sū.* **1**, 81, etc. *Syn.*: Piṇḍitaka	Emetic nut *Randia dumetorum* Lamk.	The nuts and seeds used in various prescriptions, containing honey and rocksalt, for internal use	Fever, piles, dermatosis, chronic rhinitis, coryza, etc.; as emetic and purgative
181. **MADAYANTIKĀ** *Ci.* **10**, 21, etc. *Syn.*: Medika	Henna plant *Lawsonia alba* Lamk.	The entire plant as ingredient of medicinal ghee for internal and external use	Epilepsy, malignant jaundice, grey hairs, etc.
182. **MADHUPARṆĪ** *Sū.* **3**, 21, etc. *Syn.*: Madhuvṛkṣa, Madhukapuṣpa, Madhukapuṣpī	Mohua tree; Indian butter tree *Bassia latifolia* Roxb.	The fruits taken alone or made into alcoholic beverages	Rheumatism, fever, spleen diseases, dyspepsia, etc.; for rejuvenation and virility
183. **MAHĀMEDĀ** *Sū.* **4**, 9/1, etc. *Syn.*: Śatamūlī, Śatāvarī, Śatapadī	Indian asparagus *Asparagus racemosa* Willd. or *A. sermentosa* Willd.	Cooked as vegetable; the bark and leaves used in prescriptions (internal)	As analgesic and as an aid to prolongation of life
184. **MAHĀŚRĀVAṆI** *Ci.* **3**, 258, etc. *Syn.*: Mahāśrāvaṇikā, Alambuṣā	East Indian globe-thistle *Sphaeranthus indicus* Linn.	A decoction of the plant, used in prescriptions (internal)	Fever, rheumatism; for rejuvenation

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TABLE 3

Medicinal Plants and Plant Products and their Uses—(Contd.)

Name in Caraka; reference, and synonyms if any	Modern and botanical names	Mode of use	Medicinal uses in
185. MAKUṢṬHA *Sū.* **26,** 84, etc. *Syn.:* Makuṣṭhaka	Moth bean *Phaseolus aconitifolius* Jach.	The dried beans cooked as food	Fever, haemothermia, consumption and wasting diseases
186. MĀLATĪ *Sū.* **5,** 73, etc. *Syn.:* Jātī, Gandhamālatī	Malabar nutmeg plant *Aganosma carryophyllata* G. Don.	The stalks used in decoctions; also the essential oil of the petals in prescriptions (external)	Dermatosis, female diseases, etc.; for oral hygiene
187. MĀṂSĪ *Ci.* **7,** 87, etc. *Syn.:* Jaṭāmāṃsī, Jaṭī, Jaṭā, Lomasā, Nāladā	Musk-root plant *Nardostachys jatamansi* De.	The dried roots or leaves used in prescriptions (external and internal)	Skin diseases, piles, rectal prolapse, toxicosis, urinary calculus, etc.
188. MAṆḌŪKAPARṆĪ *Sū.* **27,** 95, etc. *Syn.:* Maṇḍūkaparṇikā, Maṇḍūkī	Indian pennywort *Hydrocotyle asiatica* Linn.	A decoction of the leaves used internally	Pectoral lesions, diarrhoea, etc.; for rejuvenation
189. MAÑJIṢṬHĀ *Sū.* **4,** 10/2, etc.	Indian madder *Rubia cordifolia* Linn.	The powdered dried roots and fruits used in prescriptions (internal)	Skin diseases and diseases of the spleen
190. MARICA *Sū.* **2,** 3, etc.	Black pepper plant *Piper nigrum* Linn.	The dried seeds used as spice or in prescriptions (internal)	Rhinitis, anaemia, fainting, consumption, cough, etc.
191. MARIṢA *Sū.* **27,** 100	Gangetic amaranth plant *Amaranthus gangeticus* Linn.	Cooked as pot-herb	As an aid to elimination
192. MADHUKA *Sū.* **2,** 7, etc. *Syn.:* Atirasā, Madhurasā, Madhulī, Madhuyaṣṭhikā, Madhuyaṣṭyāhvā, Yaṣṭhimadhu, Yaṣṭhimadhuka	Liquorice plant *Glycyrrhiza glabra* Linn.	The stalks used alone and in various prescriptions (internal)	Cough, hiccup, fever, spleen disorders; as an aid to rejuvenation
193. MARUBAKA *Ka.* **1,** 23	Sweet marjorum *Origanum maryorana* Linn.	A paste of the seeds in prescriptions (internal)	As emetic
194. MĀṢA *Sū.* **2,** 28, etc. *Syn.:* Kuruvinda	Black-gram plant *Phaseolus mungo* Linn.	As ingredient of gruel, decoctions, medicinal oil, etc. (internal)	Suppurations, rheumatism, etc.; as an aid to prolongation of youth
195. MĀSAPARṆĪ *Sū.* **4,** 9, etc. *Syn.:* Vajramūlī, Māsaparṇikā, Ṛṣyaprokta	*Teremnus habialis* Spreng.	Cooked as food; the paste as ingredient of prescriptions (internal)	Fever, rheumatic conditions; for longevity
196. MASURA *Sū.* **27,** 28, etc. *Syn.:* Masuraka	*Leus esculenta* Moench.	Cooked as food or as ingredient of prescriptions (internal)	Griping pain, haemothermia, spleen diseases, etc.

197. MATSYĀSAKA *Ci.* **1/3**, 24	*Alternanthera sessilis* R. Br.	The entire plant used in prescriptions (external and internal)	As an aid to memory, intelligence, and bright complexion
198. MĀTULAṄGA *Sū.* **4**, 10, etc.	Pomelo tree *Citrus decumana* Linn.	The tendrils of the flowers used internally	Nausea, anaemia, colic pain, jaundice, suppurated conditions, etc.
199. MEDĀ *Sū.* **4**, 9/1, etc.	*Litsaea sebitera* Pers.	The sap or a decoction of the bark, used in prescriptions (internal)	Dysentery, diarrhoea, rheumatism; as promotor of longevity
200. MEṢAŚṚṄGĪ *Ci.* **3**, 267, etc. *Syn.*: Meṣaviṣāṇikā, Meṣavallī	Indian screw tree *Helicteres isora* Linn.	A decoction of the leaves, used in prescriptions (internal)	Fever
201. MṚGALIṆḌIKĀ *Sū.* **25**, 49	Chinese gooseberry tree *Averrhoa carambola* Linn.	The fruits fermented to a beer-like liquor	Insomnia, depression, anorexia, etc.
202. MUDGA *Sū.* **21**, 25	Green gram *Phaseolus radiatus* Linn. or *P. aurea* Prain or *P. sublobatus* Roxb.	Used as a pulse in diet	Excessive obesity, urinary diseases, etc.; as a nourishing food
203. MUDGAPARṆĪ *Ci.* **7**, 123, etc. *Syn.*: Mudgaparṇinī	*Phaeseolus trilobus* Ait.	As above	Dermatosis, rheumatic conditions, etc.; for longevity
204. MUKULAKA *Sū.* **7**, 123, etc.	Edible pine tree *Pinus gerardiana* Wall.	The plant used in decoctions (internal)	Suppurated swellings, urinary diseases, etc.
205. MŪLAKA *Sū.* **27**, 169, etc. *Syn.*: Mahākanda	Garden radish *Raphanus sativus* Linn.	The tender tubers taken cooked or used in prescriptions (external and internal)	Discordance of the three humors (tranquilizer), skin diseases, oedema, alcoholism, etc.
206. MUÑJĀTAKA *Ci.* **22**, 30, etc.	Salep or salem plant *Eulophia camestris* Wall.	The juice of the roots, used alone, in prescriptions, and in enema (internal and external)	Morbid thirst, leucorrhoea, irregular fever, etc.; as aphrodisiac
207. MŪRVĀ *Sū.* **11**, 11, etc. *Syn.*: Mūrvī, Guḍuci	*Sanseviera roxburghia* Schott.	The dried flowers and leaves used in prescriptions (internal)	Fever, vomiting, cough, etc.; as appetizer
208. MUṢKAKA *Ci.* **15**, 189, etc.	Parula tree *Stereospermum sauvolens* De.	The alkaline ash of the leaves and bark, used in prescriptions	Anaemia, piles, all types of throat affections
209. MUSṬĀ *Sū.* **3**, 5, etc. *Syn.*: Musta, Mustaka	Nut grass *Cyperus rotundus* Linn.	The grass dried, powdered and soaked in ox-bile, used in prescriptions (internal and external)	Obstinate skin diseases, wounds, paralytic conditions, urinary diseases, etc.
210. NĀḌĪ *Sū.* **27**, 97	*Ipomoea aquatica* Forsk.	Cooked as pot-herb	As digestive and regulator of bile secretion
211. NĀGABALĀ *Ci.* **1/1**, 45, etc. *Syn.*: Kṣaragandhā	Gingo-fruit tree *Sida spinosa* Linn.	A decoction of the dried roots, used in prescriptions (internal)	Seminal weakness, general debility, chest affections, etc.

TABLE 3

Medicinal Plants and Plant Products and their Uses—(Contd.)

Name in Caraka; reference, and synonyms if any	Modern and botanical names	Mode of use	Medical uses in
212. NĀGARAṄGA *Sū.* **27**, 156	Orange tree *Citrus aurantium* Linn.	The fruits used alone	As cordial and digestive
213. NALA *Ci.* **4**, 103, etc.	Nodding reed *Phragmites karka* Trin.	A decoction of the reeds, used in prescriptions (internal and external)	Haemothermia, fever, herpes, erysipelas, etc.
214. NĀLIKĀ *Ci.* **28**, 152	Hairy onosma tree *Onosma echoides* Linn.	The buds used as ingredient of medicinal oil (internal)	Cough, consumption, sallow complexion, pectoral lesions, etc.
215. NANDITAKA *Vi.* **8**, 140	Oval-leaved fig tree *Ficus retusa* Linn.	The dried fruits as ingredient of prescriptions (internal)	Imbalance of the humors (tranquilizer)
216. NAVAMĀLIKĀ *Ci.* **26**, 184	Jasmine *Jasminum sambac* Ait.	The petals and leaves as ingredients of nasal medication	Affections of the head
217. NĪVĀRA *Ci.* **4**, 36, etc. *Syn.*: Munidhānya, Tṛṇadhānya	Wild rice plant *Hygroryza aristata* Ness.	The cereal used as food	Haemothermia
218. NICULA *Sū.* **2**, 10, etc. *Syn.*: Hijala, Dhātrīphala	Hizal tree *Barringtonia acutangula* Gaertn.	The fruits and leaves used in alkaline decoction or paste in prescriptions (internal)	Abdominal and splenic disorders, jaundice, etc.; as purgative
219. NIKOCAKA *Sū.* **27**, 157	Levantine pistachio-nut tree *Pistacia vera* Linn.	The dried and shelled nuts used as diet	Anaemia, wasting diseases; as roborant and aphrodisiac
220. NĪLIKĀ *Ci.* **26**, 12, etc. *Syn.*: Nīlā	Indigo plant *Indigofera tinctoria* Linn.	The leaves as ingredient of rectal suppository or enema	Retention of urine, flatus, acute constipation
221. NIMBA *Sū.* **3**, 3, etc. *Syn.*: Nimbaka, Sutiktaka	Margosa tree *Azadirachta indica* Juss.	Paste or decoction of all parts of the plant, used in prescriptions (external and internal)	Skin diseases, urinary diseases, fever, and a large number of other ailments
222. NIRGUṆḌI *Sū.* **4**, 11, etc. *Syn.*: Nīlanirguṇḍī, Sidhuvara	Chaste tree *Vitex negundo* Linn.	Paste of the tubers and leaves, used in prescriptions (external)	Neuralgic pain in the supraclavical region, sinus, fistula, scabies, etc.
223. NIṢPĀVA *Sū.* **27**, 100, etc. *Syn.*: Simbī	Goa-bean plant *Dolichos lablab* Linn.	The seeds cooked as vegetable	Irregular bowel movements
224. PADMAKA *Sū.* **3**, 24, etc. *Syn.*: Padmagandhī	Bird cherry *Prunus puddum* Roxb.	The root-stalks or the fruits used in prescriptions (external and internal)	Headache, fever, cough, rheumatic conditions, etc.

225. **PALĀṆḌU** *Sū.* **27,** 175, etc. *Syn.*: **Raktakanda**	Onion plant *Allium cepa* Linn.	The tubers and the stalks in vegetable salad and soups, or taken alone	Hemorrhage, scanty stools, cough, hiccup, etc.; as appetizer and aphrodisiac
226. **PĀLAṄGKYA** *Sū.* **27,** 100	Indian spinach *Spinacea oleracea* Linn.	The plant cooked as pot-herb	Irregular bowel movements
227. **PALĀŚA** *Sū.* **2,** 13, etc. *Syn.*: **Kiṃśuka**	Bengal kino tree *Butea frondosa* Roxb.	The juice of the roots, bark, leaves, etc. in external ointments and ingredient of medicinal ghee	Acute constipation, colic, dysuria, skin diseases, etc.
228. **PANASA** *Sū.* **27,** 143, etc. *Syn.*: **Kaṇṭiphala**	Jack-fruit tree *Artocarpus integrifolia* Linn.	The fully ripe fruits as diet	Intestinal astringent
229. **PARPAṬAKA** *Sū.* **27,** 97, etc. *Syn.*: **Baratikta, Pāṃśuparyāya, Parpaṭa**	Trailing rungia *Rangia repens* Neus.	Decoction of the leaves, used in prescriptions (internal)	Fever, haemothermia, diarrhoea, etc.
230. **PARUṢAKA** *Sū.* **4,** 13, etc. *Syn.*: **Paruṣa**	Asiatic grewia *Grewia asiatica* Linn.	The fruits used alone or in prescriptions; decoction of the leaves, roots or bark, used internally	Fever, acute alcoholism, spleen diseases, cough, rheumatism, etc.; as purgative
231. **PĀṢĀṆAMEDĀ** *Sū.* **4,** 15, etc. *Syn.*: **Śilāmedā, Pāṣāṇabhedaka, Pāṣāṇabhedī**	Indian rock-foil *Coleus amboinicus* Lour.	The dried and powdered leaves with cow's urine (internal)	Urinary stones; as diuretic
232. **PAṬALA** *Sū.* **2,** 11, etc. *Syn.*: **Pāṭalī**	Trumpet-flower tree *Stereospermum chelonoides* De.	The decoction or paste of flowers and leaves, used in prescriptions (internal)	Constipation, fever, toxic conditions, etc.
233. **PĀṬHĀ** *Ci.* **3,** 204, etc. *Syn.*: **Ekastilā, Kucelā, Vṛttaparṇī**	*Stephania hernadofolia* Walp.	The roots and leaves used in prescriptions (internal)	Fever, urinary disorders, consumption, piles, etc.
234. **PAṬOLA** *Sū.* **3,** 8, etc.	Wild snake-gourd, or pulbul plant *Trichosanthes diocea* Roxb.	Decoction of the leaves, used internally; the gourds cooked as vegetable	Pruritus, pimples; all types of fever, diarrhoea, etc.; as appetizer
235. **PATRA** *Sū.* **3,** 29, etc.	Cinnamon tree *Cinnamomum tamala* Fr. Nees.	The dried leaves and bark used in prescriptions (external and internal)	Body-odour, fever, anaemia, cardiac disorders, etc.; as an aid to rejuvenation
236. **PATTURA** *Sū.* **27,** 100, etc.	Coxcomb tree *Celosia argentea* Linn.	A decoction of the seeds, used in prescriptions; the plant cooked as pot-herb (internal)	Dysuria, fever, habitual constipation, etc.
237. **PAYASYĀ** *Sū.* **4,** 9, etc.	White yam *Ipomoea paniculata* R. Br.	Used as vegetable	Emaciation, debility, loss of voice, etc.; as an aid to rejuvenation
238. **PHALGU** *Sū.* **27,** 128, etc. *Syn.*: **Mañjula**	*Ficus carica* Linn.	A paste of the figs in prescriptions; also cooked as vegetable	Emaciation and debility; urinary stone

TABLE 3

Medicinal Plants and Plant Products and their Uses—(Contd.)

Name in Caraka; reference, and synonyms if any	Modern and botanical names	Mode of use	Medicinal uses in
239. **PHENILA** *Ci.* **29,** 110 *Syn.:* Ariṣṭa	Soap-nut tree *Sapindus trifoliatus* Linn. or *S. mukorossi* Gaertn.	A decoction of seeds and fruits, used in prescriptions (internal)	Fever, rheumatism
240. **PHAÑJĪ** *Sū.* **27,** 98	Bind-weed *Rives ornata* Chois.	Cooked as pot-herb	As an aid to elimination
241. **PILU** *Sū.* **2,** 4, etc. *Syn.:* Pīluka	Tooth-brush tree *Salvadora persica* Linn.	The fruits used alone or in prescriptions (internal)	Rhinitis, fainting, hemicrania, etc.; as purgative
242. **PIPPALĪ** *Sū.* **2,** 3, etc. *Syn.:* Māgadhī, Vaidehī	Long-pepper plant *Piper longum* Linn.	The dried flowers, fruits and roots used as ingredients of prescriptions; also as spice in cooking	Used in a large number of diseases; as digestive
243. **PLAKṢA** *Sū.* **4,** 15, etc. *Syn.:* Karparī, Pitana	Yellow-barked fig tree *Ficus infectoria* Roxb.	A decoction of the tender leaves, used in prescriptions (internal)	Diarrhoea, haemothermia, seminal weakness, etc.
244. **PRĀCĪNĀMALAKA** *Sū.* **27,** 146	Indian prune *Flacourtia cataphracta* Roxb.	The fruits used alone	After-effects of poisoning
245. **PRAVĀLAJĀTI** *Ci.* **3,** 207, etc.	Chameli tree *Jasminum grandiflorium* Linn.	The sprouts or dried flowers used in prescriptions (external)	Coryza, nasal haemorrhage, fever, dermatosis, etc.
246. **PRIYĀLA** *Sū.* **3,** 21, etc. *Syn.:* Priyālaka, Rājātana	Buchanon's mango *Buchanania latifolia* Roxb.	The fruits used alone; the expressed oil in prescriptions (external)	Rheumatism, urticaria, fever, morbid thirst, etc.
247. **PRIYAṄGU** *Sū.* **4,** 15, etc. *Syn.:* Priyaka, Priyā	Perfumed cherry *Aglaia roxburghiana* Miq.	The fruits used alone; the seeds used as cereal	Fever, haemothermia, dermatosis, piles, ear-ache, etc.; as intestinal astringent
248. **PṚŚNĪPARṆĪ** *Sū.* **2,** 11, etc. *Syn.:* Pṛthakparṇī, Siṃhapuṣpī	Pointed-leaved uraria plant *Uraria lagopoides* De.	The entire plant used in prescriptions (internal)	Misperistalsis, diarrhoea, fever, cough, consumption, etc.
249. **PṚTHVIKĀ** *Sū.* **5,** 20, etc. *Syn.:* Vṛhadelā, Pṛthvī, Elākī, Aindrī, Indrāṇī Sthūlailā	Greater cardamom *Amomum subulatum* Roxb.	The dried fruits used alone or in prescriptions (internal)	Hemicrania, rhinitis, fever, skin eruptions, etc.
250. **PUGA** *Sū.* **5,** 77	Betel-nut tree *Areca catechu* Linn.	The dried nuts used alone	Halitosis, loss of appetite

251. PUNARṆAVĀ *Sū.* **2,** 12, etc. *Syn.:* Śvetamūla, Śveta-punarṇavā, Vṛścirā, Tāmalakya	Pig weed or Hog weed *Boerhaavia repens* Linn. (Varieties : *B. diffuse* & *B. procumbens*)	A decoction of the leaves and roots, used in prescriptions (internal)	Constipation, skin diseases, oedema, urinary diseases; as an aid to rejuvenation
252. RĀJĀDANA *Ci.* **30,** 97	Indian ape-flower tree *Mimusops hexandra* Roxb.	Paste of the leaves and fruits, used in medicated ghee	Menstrual disorders
253. RAKTACANDANA *Ci.* **30,** 92	Red sandal-wood tree *Pterocarspus santalinus* Linn.	A decoction of the leaves, or the powdered bark, used internally	Bleeding piles, diarrhoea, morbid menstrual discharges
254. RĀSNĀ *Sū.* **3,** 22, etc. *Syn.:* Nākulī, Gandhanākulī, Rasanā	Indian groundsel *Vanda roxburghii* Br.	Paste of the roots and rhizomes, used in prescriptions (internal and external)	Rheumatic conditions, chest-pains, fever, oedema, heart diseases, etc.
255. ROHIṆĪ *Sū.* **4,** 10, etc. *Syn.:* Vivasā, Patrāṅga	Indian red wood tree *Soymida febrifuga* Juss.	Decoction of the bark, used in prescriptions (internal and external)	Debility, chronic skin diseases; as a purifier for breast-milk
256. ROHIṢA *Ci.* **3,** 267, etc.	Geranium grass *Andropogon schoenanthus* Linn.	A decoction of the grass and roots, used in prescriptions (internal)	Fever, abdominal diseases, splenic disorders, jaundice, etc.
257. ROHITAKA *Ci.* **16,** 81, etc. *Syn.:* Sadāpuṣpā, Śālmalikā	White cedar *Amoora rohitaka* W. & A.	The powdered bark, used in decoction as ingredient of medicinal ghee, etc.	Urinary disorders, enlarged spleen, jaundice, anaemia, intestinal worms, etc.
258. RUHA *Ci.* **23,** 80, etc. *Syn.:* Vṛkṣaruha, Śekhara, Nīlāvallī	Wild orchid *Loranthus falcatus* Linn.	A decoction of the leaves, used in prescriptions (internal)	Cataract, night blindness, tumours, scabies, etc.
259. ŚAILEYAKA *Ci.* **3,** 267, etc. *Syn.:* Śaileya, Śilādadru, Śailaka	Lichen *Permelia parlata* Esche.	In prescriptions (external and internal)	Fever, toxicosis, disorders of the first humor
260. ŚAIREYA *Sū* **14,** 32	Yellow nail-dye plant *Barleria prionitis* Linn.	Paste of the leaves as ingredient of hot poultices and steam bath	Stiffness of limbs, enlargement of scrotum, sciatica, etc.
261. ŚAIVALA *Ci.* **4,** 103, etc. *Syn.:* Jalaja	Moss *Vallisneria spirallis* Linn.	In prescriptions (external and internal)	Haemothermia, giddiness, morbid thirst, rheumatism
262. ŚĀLA *Sū.* **4,** 18, etc. *Syn.:* Sarja, Sarjarasa, Sarjaka, Dīrgha-śākhā, Aśvakarṇa	Sal tree *Shorea robusta* Gaertn.	Decoction of the resin and leaves, used internally	Urinary disorders, pectoral lesions, seminal weakness; as sedative
263. SĀLEYA *Ci.* **4,** 75	Common fennel or sweet fennel *Foeniculum vulgare* Gaertn. or *Trigonella foenum graccum* Linn.	The bark made into paste with sandal-wood and used externally or internally	Bronchial asthma

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264. **ŚĀLAPARṆĪ** *Sū.* **2**, 11, etc. *Syn.*: Triparṇī, Sthira, Dīrghamūla, Vidarigandha	Tick trefoil *Desmodium gangeticum* De.	Decoction of the leaves, used in prescriptions (internal)	Constipation, diarrhoea, oedema, fever, etc.
265. **ŚALLAKI** *Sū.* **4**, 15, etc. *Syn.*: Kuntarika, Rasāla	Indian olibanum *Boswellia serrata* Roxb.	A paste or decoction of the bark alone or soaked in ghee (internal)	Cough, hiccup, nausea, etc.
266. **ŚĀLMALĪ** *Sū.* **27**, 99, etc. *Syn.*: Kukkuṭi, Nirgandhapuṣpī, Raktapuṣpaka, Moca	Red silk cotton tree *Bombax malabaricum* De.	The fresh flowers or resin used (internal and external)	Haemothermia, dysentery, rectal prolapse, etc.
267. **SAMAṄGĀ** *Ci.* **4**, 76, etc. *Syn.*: Śamīpatra, Prasāriṇī, Saṃkocinī	Sensitive plant *Mimosa pudica* Linn.	Paste or decoction in prescriptions (external and internal)	Haemothermia, piles, diarrhoea, etc.
268. **ŚAMĪ** *Sū.* **25**, 49, etc. *Syn.*: Maṅgalya, Śiva, Supatrā, Śaṅkuphalikā	*Prosopis spicigera* Linn.	The fruits and bark used in decoction (internal)	As intestinal astringent
269. **ŚAṆA** *Sū.* **27**, 99, etc. *Syn.*: Kaṭutikta, Tvaksāra	Bengal hemp plant *Crotalaria juncea* Linn.	The leaves cooked as vegetable; a decoction of the flowers and roots, used in prescriptions (internal)	Dysentery, irregular bowel movements
270. **ŚAṄKHAPUṢPĪ** *Ci.* **1/1**, 58, etc. *Syn.*: Meḍhya, Kirīti, Śaṅkhyakusumā, Śitapuṣpī	Dankuni plant *Canscora decussata* Roem.	The leaves used in prescriptions (internal)	Cough, rheumatic conditions, etc.
271. **ŚAṄKHINĪ** *Sū.* **1**, 81, etc. *Syn.*: Tiktala, Akṣipiḍaka, Yavatiktā	*Ctenolipis cerasiformis* H. & K.	Decoction of the fruits as ingredient of prescriptions and enema (internal and external)	Disorders of assimilation; as purgative and roborant
272. **SAPTAPARṆA** *Sū.* **3**, 4, etc. *Syn.*: Śāradā, Devavṛkṣa, Madagandhā	Dita *Alstonia scholaris* R. Br.	A paste of the bark, used in ointments	Chronic skin diseases, urinary diseases, oedema, etc.
273. **SARALA** *Ci.* **3**, 267, etc.	Himalayan pine tree *Pinus longifolis* Roxb.	A decoction of the leaves and bark, used in prescriptions (internal)	Fever, loss of appetite, facial paralysis, etc.
274. **SĀRIVA** *Sū.* **4**, 10, etc. *Syn.*: Nāgajihvā, Anantā, Anantamūlā	Indian sarsaparila *Hemidesmus indicus* Br.	The leaves used alone in decoction (internal)	Sallow complexion, loss of voice, dysentery, cough, menstrual disorders, etc.
275. **SARṢAPA** *Sū.* **2**, 3, etc. *Syn.*: Rājakṣavaka, Kaṭṭaka	Rape plant *Brassica campestris* Linn. (Varieties—*B. sarson*, *B. juncea*, *B. napus*.)	The powdered seeds or the expressed oil used alone or in prescriptions or in suppositories (external and internal)	Rhinitis, hemicrania, pruritus, dysuria, coryza, acute intestinal gas formation, etc.

276. ŚATAKUSUMA *Ci.* **12**, 16	*Peucedanum graveolens* Benth.	Extract of the plant as ingredient of enema	Inguinal swelling, colic pain, menorrhagia, piles, etc.
277. SĀTALĀ *Ci.* **13**, 128	*Acacia concinna* Dc.	The roots used in prescriptions (internal)	Abdominal diseases, poisoning, hardened spleen, oedema, jaundice, etc.
278. SIGRA *Sū.* **3**, 8, etc. *Syn.*: Śobhāñjana, Sigru, Haritaśāka, Raktaka	Drum-stick plant *Moringa pterygospermus* Gaertn.	The powdered bark, root, and dried sap used in prescriptions or in steaming mixtures (internal and external)	Anosmia, fainting, chronic skin eruptions, painful piles, etc.
279. SIMBITAKA *Sū.* **17**, 142	Apple tree *Pyrus malus* Linn.	The fruit used alone	As intestinal astringent
280. ŚIṂŚAPA *Sū.* **1/2**, 12, etc. *Syn.*: Kṛṣṇaśiṃśapa	Rose-wood tree *Dalbergia sissoo* Roxb.	The expressed juice of the leaves or tender bark, used in prescriptions (internal)	Senility, debility
281. ŚIRĪṢA *Sū.* **2**, 5, etc.	Siris tree *Albizzia lebbeck* Benth.	Powdered seeds, bark and leaves used alone or in prescriptions (external and internal)	Hemicrania, urinary anomalies, chronic skin diseases, toxic conditions, etc.
282. ŚLEṢMĀTAKA *Sū.* **4**, 11, etc. *Syn.*: Bhūkarvudāra, Uddālaka, Selu	Assyrian plum *Cordia mixa* Roxb. or *C. obliqua* Willd.	The bark made into ointment for local application	Poisoning; for purification of breast-milk
283. SOMARĀJĪ *Sū.* 2, 24, etc. *Syn.*: Somavallī, Somavallikā, Soma, Cāndrī	Babchi tree *Psoralea corylifolia* Linn.	The seeds cooked in gruel, or used in prescriptions (internal)	Toxicosis, night-blindness, tumour, cataract
284. SPṚKKA *Ci.* **12**, 66, etc. *Syn.*: Kuṭila, Devaputrika, Kuṭika, Nakhapuṣpī	Melilot plant *Melilotus indica* All.	The pulverized seeds as ingredient of pills	Fever, emaciation, obstructed and difficult labour.
285. ŚṚṄGĀṬAKA *Ci.* **2/2**, 14, etc. *Syn.*: Śṛṅgamūla Trikoṭa, Śṛṅgaṭa	Indian water chestnut *Trapa bispinosa* Roxb.	The shelled nuts taken alone or in prescriptions (internal)	Impotency, chest-pain, loss of voice, urinary disorders, etc.
286. STHAUNEYAKA *Ci.* **3**, 267, etc.	Glory tree *Clerodendron infortunatum* Linn.	A decoction of the bark, used internally	Fever; as an emetic
287. SUDHĀ *Ci.* **5**, 107, etc. *Syn.*: Snuk, Guda, Nanda, Nistriṃśapatraka	Thorny milk-hedge or dulk hedge *Euphorbia nerfolia* Linn.	The milky juice used in prescriptions (internal)	Oedema, piles, gastro-intestinal irritations, etc.
288. SŪKARĪ *Ci.* **9**, 46	*Tacca pinnatifida* Fors. or *T. integrifolia* Ker.	Starch from the tubers, used in medicinal jelly	Epileptic fits, insanity
289. SUNISANNAKA *Ci.* **18**, 81, etc. *Syn.*: Sitimāra, Sitāvarī, Parṇaka, Svastika	Marsilia *Marsilia quadrifolia* Figar.	The sprouts cooked as vegetable	Cough, spastic condition of the leg muscles, etc.

TABLE 3

Medicinal Plants and Plant Products and their Uses—(Contd)

Name in Caraka; reference, and synonyms if any	Modern and botanical names	Mode of use	Medical uses in
290. SURASA *Sū.* 3, 8, etc. *Syn.:* Tulasī, Bhūtaghni, Kuṭeraka, Suravallī, Sulabha, Mañjarikā	Holy basil plant *Ocimum sanctum* Linn.	A paste or extract of the leaves, used in prescriptions (internal)	Skin eruptions, fever, splenic disorders, toxicosis, paralysis, etc.
291. TĀḌAKA *Sū.* 25, 49	Palmyra palm *Berassus flabellifer* Linn.	Various parts fermented into beer-like liquor	Insomnia, depression, anorexia
292. TAGARA *Ci.* 6, 27, etc. *Syn.:* Kuṭila, Kālānusārivā, Dīpana, Śaṭha	Indian valerian *Valariana hardwickii* Wall.	A decoction of the roots, used in prescriptions (internal)	Fever, urinary diseases, poisonous bites, etc.
293. TĀLAMŪLĪ *Ci.* 17, 75	Black musali plant *Curculigo orchioides* Gaertn.	The powdered roots as ingredient of smoking mixture	Cough
294. TĀLISA *Ci.* 8, 145, etc. *Syn.:* Karicchadā, Tāliśapatraka, Tāmalakīpatra	Silver fir tree *Abies webbiana* Lindl.	The powdered leaves used in prescriptions (internal)	Cough, anaemia, digestive disorders, colic pain, etc.
295. TAMĀLA *Ci.* 3, 267, etc. *Syn.:* Gomedaka, Rāma, Tamālaka, Sukumāraka	Mysore gamboge tree *Garcinia xanthochymus* Hook.	A decoction of the fruits and seeds, used in prescriptions (internal)	Skin eruptions, toxic conditions, etc.
296. TĀMALAKĪ *Ci.* 5, 119, etc. *Syn.:* Viśvaparṇī, Bahuphalā, Uñcaṭa, Tāmalikā, Cāraṭī	Feather-foil plant *Phyllanthus niruri* Linn.	A decoction of the plant, used in prescriptions (internal)	Blood poisoning, jaundice, herpes, etc.
297. TĀMBŪLA *Sū.* 5, 77, etc. *Syn.:* Bhujaṅgalatā, Nāgavallī, Nāginī, Tāmbūlavallī	Betel-leaf plant *Piper betel* Linn.	The leaves chewed along with betel-nut, cloves, etc.	Halitosis
298. TAṆḌULA *Ci.* 4, 73, etc. *Syn.:* Akṣata	Rice plant *Oryza sativa* Linn.	Cereal food; ingredient of gruel, sweetmeat, etc.	As vitalizer and roborant
299. TAṆḌULĪYAKA *Ci.* 23, 198, etc. *Syn.:* Bahuvīryā, Kaṇḍerā, Viṣaghna, Mūṣaka	Prickly amaranth *Amaranthus polygamus* Will.	The entire plant cooked as vegetable; also as ingredient of enema	Intoxication, toxic conditions, internal haemorrhage
300. TAṄKA *Sū.* 27, 136	Pear tree *Pyrus communis* Linn.	The fruit used alone	As intestinal astringent
301. TARUṆĪ *Si.* 10, 31 *Syn.:* Devakeśara, Bhṛṅgavallabha, Suvṛtta	Cabbage rose *Rosa centifolia* Linn.	The petals as ingredient of enema	As above

302. TILA *Sū.* **3,** 14, etc. *Syn.:* Snehaphala	Sesame plant *Sesamum indicum* Linn.	The expressed oil from seeds, or alkaline ash, used in prescriptions (external and internal)	Skin eruptions, pain in vagina, acute constipation, chest complaints, etc.
303. TILAPARṆĪ *Ci.* **3,** 267, etc.	*Gynandrodropsis pentaphylla* De.	The entire plant and roots used in prescriptions (internal)	Fever
304. TINDUKA *Sū.* **25,** 40, etc. *Syn.:* Nīlasāra, Tinduka	False mangosteen *Diospyros embroypteris* Pers.	The fruits used alone	Urticaria, phlegm, excessive bile secretion, piles, etc.
305. TINISA *Ci.* **1/2,** 12, etc. *Syn.:* Citrakṛt, Śakaṭa	Chariot tree *Ougeinia dabbergioide*. Benth.	The freshly-expressed juice of the bark and stalks, used in prescriptions (internal)	Fever, debility; as a vitalizer
306. TRAYAMĀNA *Ci.* **3,** 208, etc. *Syn.:* Devabalā, Girijā, Girija, Trayamāṇika	Zalil plant *Delphinium zalil* Aitch.	Decoction of the plant, used in prescriptions (internal)	Rigor, high body-temperature, splenic disorders, chronic skin diseases, etc.
307. TṚṆAŚŪNYA *Sū.* **27,** 145, etc. *Syn.:* Laghupuṣpa, Haimī, Chinnaruha	Screw pine *Pandanus suberifolium* Linn.	The flowers used in decoctions	As antitoxic and febrifuge
308. TṚVṚTA *Sū.* **4,** 13	Turpeth plant *Operaculina turpethum* Manso.	The flowers and bark, used in prescriptions and as ingredient of enema (external and internal)	Skin eruptions, suppurated wounds, fractures, etc; as laxative
309. TUDA *Su.* **27,** 135	Indian mulberry tree *Morinda citrifolia* Linn.	A decoction of the roots, used in prescriptions (internal)	As liver tonic
310. TUMBĪ *Ci.* **26,** 15, etc. *Syn.:* Ikṣavāku, Alāvu, Phalinī, Piṇḍaphala	Bottle gourd *Lagenaria vulgaris* Seringe.	Infusion of the sprouts, fruits and seeds in milk, used as emetic	Cough, vomiting, tachycardia, poisoning, etc.
311. TURUṢKA *Ci.* **28,** 153	Storax plant *Attingia excelsa* Noronha	Liquid exudate as ingredient of medicinal oil (internal)	Cough, consumption, debility, pectoral lesions, etc.
312. TUVARA *Ci.* **30,** 124	*Avicennia officinalis* Linn.	A paste of the seeds for local application	Offensive smell from the vaginal passage
313. TVAC *Sū.* **3,** 28	Cinnamon (bark) *Cinnamomum zeylonicum* Bl.	The powdered bark used alone or in prescriptions (internal and external)	Rigor, ear-ache, eye-ache, discharge from the ear, etc.
314. UDAKĪRYAKA *Sū.* **2,** 9	Prickly wood-climber *Caesalpinia digyna* Rottl.	A decoction of the root, used internally or in enema	Accumulation of morbid matter in the colon; as purgative
315. UDŪMBARA *Sū.* **5,** 22, etc. *Syn.:* Hemadugdhī, Kṣīravṛkṣa, Kṛmikaṇṭa	Cluster fig tree *Ficus glomerata* Roxb.	The powdered root-bark used for smoking; or as ingredient of prescriptions (internal)	Eye-ache, ear-ache, dental pain, suppurated conditions, etc.
316. UÑCAṬAKA *Si.* **12,** 18/7	Blaffaris plant *Blepharis edulis* Pers.	Infusion of the plant in milk, used in nutritive enema.	Sexual debility

TABLE 3

Medicinal Plants and Plant Products and their Uses—(Contd)

Name in Caraka; reference, and synonyms if any	Modern and botanical names	Mode of use	Medicinal use, in
317. UPAKUÑCIKĀ *Ci.* **13**, 125, etc. *Syn.:* Kṛṣṇajīraka, Bhedinī, Bahugandhā	Small fennel plant *Nigella sativa* Linn.	The powdered seeds used in prescriptions (internal)	Acute constipation, colic pain, anal fistula, poisonous bites, etc.
318. UPODIKĀ *Sū.* **2**, 33, etc. *Syn.:* Viśālā, Madāśaka, Upodakī	Malabar spinach *Basella rubra* Linn.	As pot-herb or as an ingredient of gruel	Intoxication, diarrhoea, rheumatic conditions, etc.
319. UŚĪRA *Sū.* **4**, 10, etc. *Syn.:* Bahumūlaka, Indragupta, Sugandhimūla, Jaṭāmedā	Cuscus grass *Andropogon squarrosus* Linn.	The powdered leaves or an infusion used in prescriptions (external and internal)	Senility, debility, fever, chronic skin diseases, toxicosis, piles, suppurated conditions, etc.
320. UTPALA *Sū.* **4**, 15, etc. *Syn.:* Nīlapatraka, Utpalaka	Blue water-lily *Nymphaea stellata* Willd. or *N. Cyanea* Roxb.	The stalks, petals and seeds used in prescriptions (internal and external)	As above
321. VACĀ *Sū.* **2**, 9, etc. *Syn.:* Ugragandhā, Jaṭilā, Vijayā, Bhadrā, Ikṣupatrikā	Sweet-flag plant *Acorus calumas* Linn.	The leaves and stalks in powder form or decoction used in prescriptions (internal)	Skin diseases, haemorrhage, fever, urinary diseases, etc.; as purgative, appetizer and vitalizer
*322. BĀLAKA *Ci.* **17**, 124, etc.	Fragrant mallow plant *Pavonia odarata* Willd.	A decoction of the root-bark as ingredient of medicinal syrup or sweetened infusion	Asthma, hiccup, acute nausea, toxicosis, etc.
323. VAṂŚA *Ci.* **21**, 125, etc. *Syn.:* Veṇu, Tṛṇadhvaja, Dūraruhā, Tvakṣāra	Spiny bamboo *Bambusa arundinacea* Retz.	A paste or decoction of the leaves or seeds, used in prescriptions (external and internal)	Acute suppurated conditions, poisonous bites, intestinal worms, excessive fat, etc.
324. VAÑJULA *Sū.* **4**, 18, etc.	Country willow *Salix tetrasperma* Roxb.	The leaves used in infusion internally, or in enema	Excessive bile secretion; as sedative
325. VARAKA *Sū.* **27**, 14, etc. *Syn.:* Rukṣa, Sthūlaphiraṅgaka	Millet *Panicum miliaceum* Linn.	Cooked as cereal	As intestinal astringent and tranquilizer
326. VARTAKA *Sū.* **27**, 162, etc. *Syn.:* Citraphala, Kaṇṭakinī, Kaṭphala, Vārtāku, Hiṅgulī.	Brinjal plant *Solanum melongena* Linn.	Cooked as vegetable	Indigestion, anaemia, cough, etc.
327. VARUṆA *Ci.* **3**, 267, etc. *Syn.:* Kumāraka, Aśmarighna	Sacred caper tree *Crataeva religiosa* Forst.	The sprouts and leaves, in decoction, used in prescriptions (external and internal)	Assimilation disorders, piles, etc.

328. **VĀSĀ** *Sū.* **3**, 3, etc. *Syn.:* Vāsaka	Malabar nut *Adhatoda vasica* Nees.	The leaves and flowers, or a decoction, used alone or in prescriptions (internal)	Hiccup, chronic skin diseases, fever, pulmonary consumption, etc.
329. **VASTUKA** *Sū.* **27**, 88	White goose-foot plant *Chenopodium album* Linn.	The entire plant used in decoctions (internal)	Constipation, chest-pain
330. **VAṬA** *Sū.* **4**, 15, etc. *Syn.:* Kṣīrī, Nandī, Suṅga, Skandaruha	Banyan tree *Ficus bengalensis* Linn.	The fruits used alone or dried and powdered to form smoking mixture; also in decoction (internal)	Excessive urination, fever, toxicosis, etc.
331. **VĀTĀMA** *Sū.* **27**, 157, etc. *Syn.:* Vātada	Indian almond tree *Terminalia catappa* Linn.	The seeds used alone or in prescriptions (internal)	Debility, emaciation, wasting diseases, anaemia, etc; as aphrodisiac
332. **VETASA** *Ci.* **3**, 258, etc. *Syn.:* Nikuñcaka	Rattan cane *Calamus viminalis* Willd.	The leaves cooked as vegetable	Fever with rigor, haemothermia, morbid thirst, menstrual disorders, etc.
333. **VIḌAṄGA** *Sū.* **1**, 81, etc. *Syn.:* Bhasmaka, Ghoṣā, Citrabījā	Embelia plant *Embelia ribes* Burm f.	Used as dried powder, or the decoction in prescriptions (external and internal)	Chronic skin diseases, dysentery, diarrhoea, etc.; for oral hygiene, and as purgative.
334. **VIKAṄGATA** *Sū.* **27**, 145, etc. *Syn.:* Vaikaṅgata, Kaṇṭakī, Kaṇṭapada, Madhuparṇī, Mṛduphalā	Thorny staff tree *Gymnosporia montana* Benth.	Decoction of the leaves, stalks and fruits, used in prescriptions (internal)	After-effects of poisons
335. **VṚKṢĀMLA** *Ci.* **11**, 85, etc. *Syn.:* Cuḍāmla, Bījāmla	Wild mangosteen *Garcinia indica* Chois.	The fruits used alone or in prescriptions (internal)	Flatulence, oedema, chronic alcoholism, etc.; as cordial
336. **VṚŚCIKĀLĪ** *Ci.* **9**, 47, etc. *Syn.:* Karkaśa, Amara, Kṣīraviṣāṇikā	Climbing nettle plant *Tragia involucrata* Linn.	Ingredient of medicinal ghee (internal)	As an aid to memory, intellect and growth of young children
337. **VIṢĀṆIKĀ** *Sū.* **1**, 78, etc.	Stinking swallow-wort plant *Docmia extensa* R. Br.	A decoction of the plant, used in prescriptions (internal)	Assimilation disorders, constipation; as a purifier of breast-milk
338. **YAMĀNĪ** *Ci.* **6**, 4	Bishop's weed *Carum copticmu* Benth.	A decoction of the dried seeds, used in prescriptions (internal)	Indigestion, anaemia, piles, alcoholism, etc.
339. **YAVA** *Sū.* **2**, 12	Barley plant *Hordenum vulgare* Linn.	As cereal food or in gruel	Constipation, throat diseases, dysentery, cough, vomiting, paralysis, etc.
340. **YAVAŚĀKA** *Ci.* **3**, 222, etc. *Syn.:* Sukṣmapatra, Tīkṣṇakaṇṭaka	Camel thorn or Khorasan thorn plant *Alhagi maurorum* Desu.	A decoction of the plant in prescriptions (internal)	Fever, haemothermia
341. **YŪTHIKĀ** *Ci.* **8**, 129, etc. *Syn.:* Ambaṣṭhā, Bālapuṣpā, Cārumodā	Common jasmine *Jasminum auricubtum* Vahe.	The sprouts cooked as vegetable; the leaves used in decoctions for prescriptions (internal)	Diarrhoea, colic pain, jaundice, etc.

*Substances Nos. 44 and 322 have not been placed in their proper alphabetical order through mistake.

TABLE 4

Medicinal Substances of Mineral Origin and their Uses

Name and reference	Modern equivalent	Mode of use or application	Medicinal uses in
1. ADRIJATU *Ci.* **16,** 78 *Syn.:* ĀŚMAJATU *Ci.* **12,** 49; **16,** 81 GIRIJA *Ci.* **1/3,** 64; **21,** 130, etc. ŚILĀJATU *Sū.* **21,** 24, etc. ŚILODBHEDA *Ci.* **15,** 113; **30, 90**	Mineral bitumen (exudate from ores)	(*a*) Internal—in linctus (*b*) Internal—in decoction (*c*) Internal—in powder mixture (*d*) Internal—taken alone (*e*) Internal—taken mixed with finely powdered diamond and plant-juices	(*a*) Anaemia, oedema, jaundice, urinary diseases, excessive menstrual flow, fever, consumption, emaciation, etc. (*b*) Obesity, imbalance of the body humours, debility, etc. (*c*) Hard cutaneous eruptions, enlarged spleen (*d*) Intoxication, fainting (*e*) Malignant skin diseases; as a general remedy for all bodily ailments
2. AGĀRADHŪMA *Ci.* **23,** 41; *Si.* **7,** 24, 25; **9,** 58 *Syn.:* GṚHADHŪMA *Sū.* **3,** 5 VEŚMADHŪMA *Ci.* **23,** 14	Soot from kitchen smoke	(*a*) External—in ointment (*b*) External—as rubbing powder (*c*) Ingredient of rectal suppositories (*d*) Internal—in linctus (*e*) Internal—in mixture	(*a*) Chronic skin diseases, poisonous bites (*b*) For extracting venom from poisonous bites (*c*) Flatulence, constipation, retention of urine (*d*) Throat affections (*e*) Poisoning
3. AGRYALAVAṆA *Ci.* **23,** 96 *Syn.:* SAINDHAVA *Sū.* **1,** 88; **5,** 12, etc.; *Vi.* **8,** 141; *Śā.* **8,** 34, etc.; *Ci.* **1/1,** 25; **2/4,** 11, etc.	Rock-salt	(*a*) External—used in many different modes of application (*b*) Internal—used in many types of prescriptions	(*a*) & (*b*) For a very large number of pathological conditions and as a general tonic
4. ĀLA *Sū.* **1,** 70; **3,** 5, etc.; *Ci.* **9,** 66; **18,** 69, etc. *Syn.:* HARITĀLA *Sū.* **5,** 26; *Ci.* **7,** 114; **26,** 196	Yellow orpiment (arsenious sulphide)	(*a*) Ingredient of medicinal cigars (*b*) External—in medicated oil (*c*) External—ingredient of oral gargle	(*a*) Imbalance of the first and third humors (*b*) Parasitic infections of the skin, eruptions and itchings (*c*) Mouth and throat diseases
5. AMṚTĀSAṄGA *Ci.* **7,** 114 *Syn.:* TUTTHA *Sū.* **3,** 12; *Ci.* **7,** 114, etc.	Blue vitriol (copper sulphate)	(*a*) External—in dusting powder (*b*) External—in ointment	(*a*) Ringworm, scabies, herpes, etc. (*b*) Exanthema, cutaneous eruptions, eye-affections, piles, eczema, etc.
6. AÑJANA *Sū.* **1,** 70; **3,** 5 *Syn.:* SAUVĪRĀÑJANA *Sū.* **5,** 15	Black sulphide of antimony	(*a*) External—in ointment	Leucoderma, fistula, piles, dimness of vision, eye-diseases, etc.

7. ANŪPALAVAṆA *Vi.* **8,** 141	Salt obtained by evaporations of well-water	Ingredient of rectal enema	As purgative
8. AŚMAMAYĪ ŚILĀ *Sū.* **14,** 26, 47, 58; *Śā.* **8,** 34, 42; *In.* **12,** 20; *Ci.* **1/3,** 63; **5,** 17, etc.	Slab of stone	Used for hot fomentation (covered with silk, cotton etc.)	Hard cutaneous swellings, abscess, varicocele, etc.
9. AYAS *Ci.* **21,** 131	Iron	Used for hot compress or fomentation	Hard cutaneous swellings, varicocele
10. ĀYASA *Sū.* **1,** 131; **21,** 23; *Śā.* **8,** 34; *Ci.* **7,** 88; **12,** 21, etc. *Syn.:* KĀLALOHARAJAS *Sū.* **21,** 23; *Ci.* **7,** 171 KṚṢṆĀYASA *Ci.* **1/2,** 49 KĀLĀYASARAJAS *Ci.* **1/1,** 58	Finely powdered iron or specially prepared iron	(*a*) External—in dusting powder (*b*) External—ingredient of poultice (*c*) External—in ointment (*d*) External—in hair-lotion (*e*) Internal—used in prescription after prolonged contact with cow's urine (*f*) Internal—in linctus (*g*) Internal—in (acid) liquid mixture (*h*) Internal—in pills	(*a*) Cutaneous eruptions (*b*) Inflammation (*c*) Blindness, unseparated eyelids, tumours, piles (*d*) As hair-tonic and hair-dye (*e*) Leucoderma, jaundice, urinary disorders, anaemia, heart diseases, anal fistula, etc. (*f*) Toxicosis, asthma, cough, hiccup, etc. (*g*) Obesity, flatulence, debility, etc. (*h*) Disorders of chyme formation, spleen disorder, jaundice, anaemia, oedema, gastro-intestinal irritations, lithiasis, etc.
11. AYOMALA *Ci.* **16,** 74 *Syn.:* MAṆḌŪRA *Ci.* **16,** 95, 103	Iron rust	(*a*) Internal—in linctus (*b*) Internal—in prescription after prolonged treatment with cow's urine	(*a*) Toxic conditions with fever, spastic paraplegia, epilepsy, urinary disorders, skin diseases, etc. (*b*) Anaemia, dropsy, oedema, urinary disorders, jaundice, dysentery, intestinal parasites, etc.
12. BĀLUKA *Vi.* **8,** 141	Salt from saline sand	Ingredient of rectal enema	For relief in inflammatory conditions
13. BHṚṢṬALOṢṬA *Ci.* **20,** 30 *Syn.:* PAKVALOṢṬA *Ci.* **4,** 80; **22,** 42	Lump of baked clay	Medication of drinking water by prolonged immersion	Haemothermia, biliousness
14. DVE LAVAṆE *Ci.* **5,** 80; **26,** 12, 101	Rock-salt mixed with alkaline salts	(*a*) Ingredient of rectal suppository (*b*) Internal—in powder mixture	(*a*) Acute constipation (*b*) Pain in gastric region or rectal area, piles, spleen disorders, pain after meals, throat spasms, etc.
15. DVE TUTTHE *Ci.* **7,** 108	The two vitriols	External—in medicated oil	Itching eczema, dermatosis

TABLE 4

Medicinal Substances of Mineral Origin & their Uses—(Contd.)

Name and reference	Modern equivalent	Mode of use or application	Medicinal uses in
16. **GAIRIKA** *Sū.* **3,** 5; *Ci.* **3,** 73; **25,** 117; **26,** 210, etc.	Chalk of reddish-brown colour	(a) External—in ointment (b) External—in mud-pack (c) Ingredient of oral gargles (d) Internal—in liquid mixture (e) Internal—infusion in water	(a) White leprosy, depigmentation of the skin, ringworm, exanthema, piles, etc. (b) Spreading skin infections (c) Halitosis, inflammation of mouth and throat, dental caries, diseases of the gum, etc. (d) Haemothermia, bronchial asthma, bleeding nose, etc. (e) Blood dysentery, menstrual disorders, diseases of the uterus
17. **GANDHAKA** *Ci.* **7,** 71 *Syn.:* **LELITAKA** *Ci.* **7,** 70 **SAUGANDHIKA** *Sū.* **3,** 10; *Ci.* **17,** 126	Sulphur	(a) External—in dusting powder (b) Internal—in linctus (c) Internal—suspended in acid plant juices	(a) Ringworm, itches, herpes, scabies (b) Asthma, cough, hiccup (c) Chronic skin diseases
18. **GARAMAṆI** *Ci.* **23,** 252	The 'poison' gem	External—to be kept in contact with the skin	As an antidote for poisoning
19. **HEMAN** *Vi.* **8,** 9 *Syn.:* **SUVARṆA** *Sū.* **1,** 70; **5,** 74 **KANAKA** *Śā.* **3,** 16; **8,** 19, etc. **KĀÑCANA** *Ci.* **1/4,** 59	Gold	(a) Material for catheters, enema tubes, tongue scrapers, etc. (b) Medication of drinking water by prolonged immersion (c) Internal—ingredient of medicated ghee	(b) Haemothermia (c) As a vitalizing tonic and a panacea in all bodily ailments
20. **IṢṬAKA-CŪRṆA** *Ci.* **27,** 49	Brick-powder	External—as powder for massage	Spastic paraplegia
21. **KĀCA** *Ci.* **27,** 125	Glass or glass like mineral	Internal—powdered and used in linctus	Hiccup, cough, asthma
22. **KĀLALAVAṆA** *Sū.* **27,** 303; *Vi.* **8,** 141; *Śā.* **8,** 34; *Ci.* **13,** 134 *Syn.:* **KĀLOTTHALAVAṆA** *Ci.* **15,** 171	Black salt	(a) Internal—taken alone or dissolved in acid fruit juices (b) Internal—ingredient of medicated ghee	(a) As digestive, laxative and general tonic (b) Loss of appetite

23. **KĀÑCANAGAIRIKA** *Ci.* **20,** 32 *Syn.:* **KĀMŚRĪ** *Ci.* **23,** 54; **30,** 121	Yellow ochre	(*a*) Internal—infusion with water (*b*) Internal—in piles	(*a*) Imbalance of the second and third humors (*b*) Fever, toxicosis
24. **KĀṂSYA** *Śā.* **8,** 9; *Ci.* **24,** 154; *Si.* **3,** 7 *Syn.:* **RĪTI-KĀṂSYA** *Sū.* **3,** 7	Bronze or bell-metal	Material for enema tubes, etc.	
25. **KĀSĪSA** *Sū.* **3,** 5, 10; *Ci.* **7,** 102 etc.; **21,** 126, etc. *Syn.:* **PAUṢPĀÑJANA** *Ci.* **26,** 250	Green vitriol (ferrous sulphate)	(*a*) External—in ointment (*b*) External—in eye-ointment (*c*) External—in dusting powder (*d*) External—ingredient of poultice (*e*) External—in medicated oil for local application	(*a*) Leucoderma, alopecia, fistula (*b*) Gradual loss of vision (*c*) Spreading inflammation, discoloured skin, skin diseases (*d*) Eye-diseases (*e*) Slimy discharges from the vagina, displaced or prolapsed uterus, painful and congested uterus
26. **KṚṢṆAMṚT** *Ci.* **19,** 82; **22,** 44 *Syn.:* **KṚṢṆAMṚTTIKĀ** *Su.* **27,** 200; *Ci.* **19,** 64	Black clay	Internal—in aqueous infusion	Excessive thirst, haemorrhage
27. **KṚṢṆASIKATĀ** *Ci.* **22,** 44	Black sand	Medication of drinking water by prolonged immersion	Excessive thirst
28. **LAVAṆĀNI CATVĀRI** *Ci.* **15,** 111	Mixture of four salts	(*a*) Internal—in pills (*b*) Internal—as ingredient of powder	(*a*) Spleen diseases, jaundice, loss of appetite, emaciation, etc. (*b*) Cough, asthma, heart diseases, etc.
29. **LAVAṆA-PAÑCAKA** *Sū.* **1,** 75; *Ci.* **13,** 127; **15,** 106, etc.	Mixture of five salts	(*a*) Ingredient of rectal enema (*b*) External—as massaging powder (*c*) Internal—in medicinal powder (*d*) Internal—in pills (*e*) Internal—in medicated ghee (*f*) Internal—in liquid mixture	(*a*) Constipation (*b*) For inducing bleeding in poisonous bites (*c*) Spleen diseases, flatulence, indigestion, short breath, etc. (*d*) Coryza, heart-block (*e*) Cough, consumption, oedema, inguinal swelling, heart diseases, etc. (*f*) Dysentery, anaemia, gastro-intestinal irritation, etc.
30. **LAVAṆATRAYA** *Ci.* **15,** 177, 183; **20,** 25; *Si.* **9,** 18	Mixture of three salts	(*a*) Internal—in medicated ghee (*b*) Internal—in pills (*c*) Internal—in liquid mixture	(*a*) & (*b*) Colic pain, misperistalsis, piles, dysentery, etc. (*c*) Tetanus, convulsions, cardiac seizures

TABLE 4

Medicinal substances of Mineral Origin & their Uses—(Contd.)

Name and reference	Modern equivalent	Mode of use or application	Medicinal uses in
31. LOHA *Ci.* **25,** 103, etc.	Metal (iron)	Material for surgical instruments	
32. LOHITAMṚT *Ci.* **23,** 101	Red clay	Internal—in pills	Poisoning, oedema, indigestion, intestinal worms, etc.
33. MĀKṢIKA *Ci.* **7,** 70; **16,** 76, etc. *Syn.:* TĀPYA *Ci.* **16,** 78; **26,** 250	Iron pyrites	(*a*) External—in eye-ointment (*b*) Internal—in pills, after prolonged immersion in cows' urine (*c*) Internal—in linctus	(*a*) Gradual loss of vision (*b*) Chronic skin diseases (*c*) Anaemia, irregular fever, urinary disorders, emaciation, toxicosis, jaundice, etc.
34. MANAḤŚILĀ *Sū.* **1,** 70; **3,** 5; **5,** 28, etc.; *Si.* **7,** 117; **17,** 77, etc.	Realgar (arsenic sulphide)	(*a*) External—in dusting powder or in ointment (*b*) Ingredient of medicinal cigar (*c*) Internal—in linctus, pills or medicated ghee	(*a*) Chronic skin diseases, piles, leucoderma, baldness, alopecia, leprosy, exanthema, etc. (*b*) Migraine, hemicrania, earache, diseases of the gum, drowsiness, etc. (*c*) Oedema, dysentery, toxicosis, night-blindness, carbuncle, etc.
35. MAṆI *Sū.* **1,** 70; **6,** 31; **8,** 19; *Ni.* **7,** 16; *Ci.* **26,** 250, etc. *Syn.:* RATNA *Sū.* **8,** 19, *In.* **1/2,** 33	Precious stone	External—in eye-salve, as fine powder	Eye-diseases, failing vision
36. MAULAKA *Vi.* **8,** 141	Black salt	Ingredient of rectal enema	For rheumatic conditions
37. MṚT *Sū.* **9,** 13; **18,** 6; *Śā.* **1,** 43; *Ci.* **4,** 79; **16,** 121, etc.	Clay	(*a*) Internal—ingredient of mixture (*b*) Internal—in aqueous suspension	(*a*) Geophagism or abnormal hankering for clay (*b*) Haemothermia
38. O(A)UDBHIDA *Sū.* **1,** 188; **27,** 303; *Vi.* **8,** 141; *Ci.* **15,** 85; **26,** 227	Fossil salt	(*a*) Ingredient of rectal enema (*b*) Internal—in medicated ghee (*c*) Internal—in emulsion with oil	(*a*) Constipation (*b*) Deafness, infected ear-passage, discharge of pus from ears, etc. (*c*) Intestinal worms
39. PAKYA *Ci.* **15,** 85, 109	Artificially prepared salt	Internal—in medicated ghee	Indigestion, dysentery, etc.

40. PAṄKA *Ci.* **22,** 37; *Sū.* **18,** 6 *Syn.:* PUṢKARIṆĪMṚT *Ci.* **4,** 104	Slime	As mud-pack for application to the skin	Sunburn, high fever, etc.
41. PĀṂŚU *Ci.* **23,** 38, 174	Powdered earth (clay)	External—for local application	Poisonous bites
42. PĀṂŚUJA *Sū.* **27,** 304; *Vi.* **8,** 141	Salt prepared from saline clay	Internal—in mixtures	Loss of appetite, flatulence, rheumatism
43. RAJATA *Vi.* **8,** 9, 11; *Ci.* **1/1,** 58; **3,** 23, etc. *Syn.:* RŪPYA *Sū.* **5,** 74; *Ci.* **16,** 78, etc.	Silver	(*a*) Material for fine tubes and catheters (*b*) Internal—in linctus as fine powder	(*b*) Asthma, cough, hiccup, emaciation, loss of appetite, etc.
44. ROMAKA *Vi.* **8,** 141; *Ci.* **15,** 85 *Syn.:* VIḌA *Sū.* **1,** 88; **27,** 302; *Śā.* **8,** 34; *Ci.* **5,** 69; **15,** 85, etc.	Salt obtained from saline soils	(*a*) Ingredient of rectal enema (*b*) External—in medicated oil (*c*) Internal—in medicated ghee (*d*) Internal—in fermented mixture (*e*) Internal—in aqueous infusion (*f*) Internal—in powder mixtures (*g*) Internal—dissolved in acid fruit juices	(*a*) As a purgative in loss of appetite (*b*) Affections of the ear-passage and of hearing (*c*) & (*d*) Enlarged spleen, painful movement of bowels, mucus in stool, general weakness, etc. (*e*) Cough, asthma (*f*) Hard skin nodules, enlarged spleen, anaemia, dysentery, etc. (*g*) Chronic alcoholism
45. RŪPYAŚILĀJATU *Ci.* **1/3,** 58	Mineral bitumen from ores of silver	Internal—as powder	Imbalance of the first and third humors
46. SĀMUDRA *Sū.* **1,** 89; *Vi.* **8,** 141 *Syn.:* SĀMUDRAKA *Sū.* **27,** 304	Sea-salt	(*a*) Ingredient of rectal enema (*b*) Internal—in powder mixtures	(*a*) Imbalance of the humors (as tranquillizer) (*b*) Indigestion, loss of appetite
47. SARVALOHA *Ci.* **1/3,** 46	Tin, lead, iron, copper and silver	Internal—as finely-divided powders, boiled with myrobolan juice	As general tonic
48. SĪSAKA *Śā.* **3,** 16; *Ci.* **7,** 88; **17,** 126	Lead	(*a*) Internal—in pills, after prolonged immersion of the powdered metal in cow's urine (*b*) Internal—in linctus as powder	(*a*) Cutaneous eruptions (*b*) Asthma, cough, hiccup
49. SAURĀṢṬRĪ *Ci.* **7,** 114; **15,** 138; **30,** 79, 98	Alum	(*a*) External—in medicated oil (*b*) Internal—in linctus	(*a*) Intestinal worms, pruritus, leucorrhoea, erosion of the cervix, prolapsed uterus, etc. (*b*) Gastric disorders, enlarged spleen, colic pain, jaundice, anorexia, etc.

TABLE 4

Medicinal substances of Mineral Origin & their Uses—(Contd.)

Name and reference	Modern equivalent	Mode of use or application	Medicinal uses in
50. SAUVARCALA *Sū.* **1,** 88; **28,** 20, etc.; *Vi.* **8,** 14; *Śā.* **8,** 34; *Ci.* **5,** 69; **8,** 142, etc.; *Ka.* **7,** 53; *Si.* **7,** 17; **9,** 19, etc.	Salt obtained by boiling alkali with myrobolans	(*a*) External—in various modes of application (*b*) Internal—in a large number of prescriptions	(*a*) & (*b*) Used in a large number of pathological conditions
51. SPHAṬIKA *Ci.* **1/4,** 22; **17,** 125	Quartz	(*a*) Internal—in linctus as fine powder (*b*) Internal—in medicated ghee	(*a*) Asthma, cough, hiccup (*b*) As a general tonic
52. SUVARṆAMĀKṢIKA *Ci.* **7,** 71	Pyrites ore	Internal—the powder after digestion with acid juices	A general remedy in all diseases
53. TĀMRA *Ci.* **21,** 231	Copper	Material for hot fomentation	Varicocele, hard cutaneous swellings
54. TĀMRARAJAS *Ci.* **1/1,** 58; **1/4,** 22; **17,** 126; **24,** 246, etc.	Finely divided copper	(*a*) External—in eye-ointment (*b*) Internal—in linctus (*c*) Internal—in mixture after digestion with plant juices	(*a*) Eye-diseases (*b*) Accumulation of waste matter in stomach, hiccup (*c*) General weakness and debility
55. TĀMRAŚILĀJATU *Ci.* **1/3,** 58	Mineral bitumen from ores of copper	Internal—as powder	As a vitalizing tonic
56. TĪKṢṆĀYASA *Ci.* **1/3,** 16	Tempered iron or steel	Internal—in pills, after digestion of thin foils of the metal in acid juices	As a vitalizing tonic
57. TILAKṢĀRA *Sū.* **3,** 14	Alkaline ash from sesame seeds	External—in ointment	Ringworm, pruritus, papules on the skin-surface
58. TRAPU *Sū.* **5,** 74; *Ci.* **7,** 88; *Si.* **3,** 7	Tin	(*a*) Material for enema tube, etc. (*b*) External—as ingredient of dusting powder	(*b*) Cutaneous eruptions
59. UDBHIDA-SAINDHAVA *Sū.* **1,** 88; **27,** 303; *Vi.* **8,** 141; *Ci.* **15,** 85; **26,** 227	Salt obtained from ashes of marine plants	(*a*) In rectal enema (*b*) Internal—in medicated ghee (*c*) Internal—in oil-emulsion	(*a*) Constipation, colic pain, enlarged spleen, abdominal diseases, etc. (*b*) Diseases of the eye, mouth and ear

60. **VAIDURYA** *Ci.* **1/4,** 22; **4,** 79, etc.	Beryl (cat's eye)	(*a*) External—in eye-ointment as powder (*b*) Internal—in linctus (*c*) Internal—in aqueous infusion	(*a*) Eye-diseases (*b*) Asthma, cough, hiccup (*c*) Haemothermia
61. **VAJRA** *Ci.* **7,** 22; **23,** 252	Diamond	Internal—finely powdered and mixed with plant juices	As a general remedy for all ailments
62. **VALMĪKA-MṚTTIKĀ** *Ci.* **27,** 49, 51, 54	The deposit of white-ant hills	External—as massaging powder	Spastic paraplegia
63. **VIṢAMŪṢIKĀ** *Ci.* **23,** 253	The "anti-poison" gem	External—to be worn in contact with the skin	Antidote for poisoning
64. **VARĀṬAKA** *Ci.* **26,** 224	Lime obtained by burning cowrie shells	Internal—as powder suspended in medicated oil	Ear-ache

Table 5
Cereals and Legumes

ŚŪKADHĀNYA-VARGA (Cereals)	
(1) Varieties of rice:—	*Raktaśāli, Mahāśāli, Kalama, Śakunihṛta, Tūrṇaka, Dīrghaśūka, Gaura, Pāṇḍuka, Lāṅgula, Śāribhakhya, Promodaka, Pataṅga, Tāpanīya, Yavaka, Havana, Pāṃśu-vāpya, Naiṣadhaka, Svastika, Gaurasvastika, Varaka, Uddālaka, Cīna, Śārada, Ujjvala, Dardura, Gandhana, Kuruvinda, Vrīhi* and *Pāṭala* (*Sū.* **27**, 6-13)
(2) Varieties of millet:—	*Śyāmaka, Hastī-śyāmaka, Ambhas-śyāmaka, Nīvāra, Toyaparṇī, Gavedhuka, Prasāntika, Lauhitya, Aṇu, Priyaṅgu, Mukunda, Jhiṇṭigarmuṭi, Varuka, Varaka, Śivira, Utkaṭa,* and *Jūrṇāhyā* (*Sū.* **27**, 16-18).
(3) Other varieties of corns:—	*Yava* (barley), *Veṇuyava* (bamboo-seeds), *Godhūma* (wheat), *Nandimukhī* and *Madhulī* (*Sū.* **27**, 19-22)
ŚAMĪDHĀNYA-VARGA (Legumes)	*Mudga* (green gram), *Māṣa* (black gram), *Rājamāṣa* (black-eye pea), *Kulattha* (horse-gram), *Madhuṣṭaka* (moth-gram), *Caṇaka* (chick-pea), *Masura* (lentil), *Sahareṇava* (common pea), *Tila* (sesame), *Simbī, Āḍaka* (pigeon-pea), *Saidagaja, Avalmuja, Kakanda* (sword-bean), *Umā* (linseed), *Ātmaguptā* (cowage) (*Su.* **27**, 23-34)

Table 6
Natural Waters
JALA-VARGA *Sū.* **27**, 197-216.

Name and reference	English translation
ANŪPA-JALA	Water of fresh-water lakes
BĀPĪ-JALA	Water of artificial tanks
HAIMA-JALA	Water from melting ice or snow
KŪPA-JALA	Well-water
NADYA-JALA	River water
PRASRAVAṆA-JALA	Water of surface springs and geysers
ŚAILA-JALA	Water of hill or mountain springs
SAROJALA	Water of ponds
ŚIŚIRA	Dew
TAḌĀGA-JALA	Water of artificial lakes
TOYADA-JALA	Rain water
TUṢĀRA	Snow
VARUṆĀLAYA-JALA	Sea water

TABLE 7
Sugar-cane Derivatives & Types of Honey

Name and reference	English translation
RASA-VARGA, *Sū.* **27,** 238-242	Sweet juices and their derivatives
AVAŚOṢITA-RASA	Sugar-cane juice boiled down to half, one-third, or one-fourth of its original bulk
DHAUTA-GUḌA	Clarified *guḍa*
GUḌA	Dark-brown semi-crystallized crude sugar
IKṢU-RASA	Sugar-cane juice
KHAṆḌA-ŚARKARĀ	Candied sugar
KṢUDRA-GUḌA	Dark-coloured treacle (or molasses)
MADHU-ŚARKARĀ	Crystallized honey
MATSYA-PIṆḌAKA	Crude granulated sugar
PAUṆḌRAKA	Sugar-cane juice (clarified)
ŚARKARĀ	Crystallized cane sugar
VAṂŚAKA	Unclarified sweet juice of the "Camel thorn" (*Alhazi mauro-rum*)
YĀNTRIKA-RASA	Mechanically pressed cane-juice
MADHU-VARGA *Sū.* **27,** 243	Honeys
BHRĀMARA	Honey of the *Apis dorsata*
KṢAUDRA	Dark-coloured honey from unspecified source
MĀKṢIKA	Bee honey
PAUTTIKA	Insect or wasp honey

Table 8
Milk and Milk-products
PAYOVARGA *Sū.* **27,** 217-236

Name and reference	English translation
ĀVIKA-GHṚTA	Clarified butter prepared from sheep's milk
ĀVIKA-PAYAS	Sheep's milk
CHĀGA-GHṚTA	Clarified butter prepared from goat's milk
CHĀGA-PAYAS	Goat's milk
DADHI	Sour milk(curds or koumiss)
EKAŚAPHA-PAYAS	Milk from animals with uncloven hooves
GAVYA-GHṚTA	Clarified butter from cow's milk
GAVYA-PAYAS	Cow's milk
GHṚTA	Clarified butter from any source; or any preparation containing a major proportion of clarified butter
HASTINĪ-PAYAS	Elephant's milk
KILĀTA	Concentrated milk
MAHIṢĪ-GHṚTA	Clarified butter from buffalo-milk
MAHIṢĪ-PAYAS	Buffalo's milk
MAṆḌA	Casein
MAṆḌAKA	Immature curds (partly souredmilk)
MĀNUṢA-PAYAS	Human milk
MORAṬA	Thickened milk
NAVANĪTA	Butter
SARA	Coagulum of milk
TAKRA	Dilute buttermilk
TAKRAPIṆḌAKA	Coagulated (solid portion of) buttermilk
UṢṬRĪ-PAYAS	Camel's milk

TABLE 9
Vegetable Oils
TAILA-VARGA Sū. **27,** 291-293

Name and reference	English translation
ATASYA-TAILA	Linseed oil
ERAṆḌA-TAILA	Castor oil
KUSUMBHA-TAILA	Safflower oil
PRIYĀLA-TAILA	Oil of the *Buchannania Latifolia*
SARṢAPA-TAILA	Mustard oil
TILA-TAILA, *Sū.* **13,** 12	Sesame (*Sisamum indicum*) oil

TABLE 10
Alcoholic Beverages
MADYA-VARGA Sū. **27**, 179-193

Name and reference	English translation
ABHINAVA-MADYA	Freshly fermented liquor
ĀKṢIKI	Fermented liquor from the chebulic myrobolan
AMLAKĀÑJIKA, *Ci.* **5**, 77 *Syn.*: *Kāñjika* *Dhānyāmla, Sū.* **15**, 7 *Tuṣodaka*	Sour fermented liquor from rice gruel
ĀRAṆĀLA, *Ci.* **15**, 116	Sour gruel from fermented boiled rice
ARIṢṬA	Distilled wine for medicinal use
ĀSAVA	General name for distilled wine
ĀSUTA, *Ci.* **15**, 121	Brewed mixture containing *Soma* plant juice
GAUḌA	Rum prepared from crystallized brown sugar
JAGALA	Fermented liquor prepared from unboiled rice
MADHULIKA	Clear fermented liquor from *Mohua* fruits
MADHUSUKTA, *Ci.* **26**, 227	Fermented liquor from a mixture of sugar-cane juice, dark-brown crude sugar and boiled rice; sweetened with honey
MADHVĀSAVA	Rum prepared from honey
MĀDHVĪKA	Fermented liquor sweetened with honey
MADYA *Syn.*: *Surā*	Fermented liquor from barley, etc.
MADIRĀ *Syn.*: *Surāmaṇḍa* *Vāruṇīmaṇḍa, Ci.* **5**, 92	Distilled wine containing least amount of water (of high alcohol content)
MAIREYA	Mixed wine containing equal quantities of rum and fermented (undistilled) wine
MṚDAUKA	Fermented liquor from grape juice
PAKVARASA *Syn.*: *Sidhu, Vi.* **8**, 140	Fermented liquor from mixture of thickened cane juice and dark-brown crude sugar
Prasannā, Ci. **26**, 18	Clear decanted layer of fermented liquors
RASĀSAVA	Fermented liquor of sugar-cane juice
ŚĀRKARĀ	Fermented liquor from cane sugar solution
SAUVĪRAKA	A type of fermented liquor
ŚĪTARASIKA	Fermented liquor from cold (unboiled) sugar-cane juice
SUKTA, *Ci.* **29**, 9	Fermented liquor from mixture of cold sugar-cane juice and boiled rice
SURĀSAVA	Wine distilled from fermented liquor
TUṢĀMBU	Sour fermented liquor from barley gruel

TABLE 11-A
Anatomical Terms—General

Name and reference	Modern name
1. ADHARAGUDA, *Śā.* **7,** 10	Anus
2. AKṢI, *Śā.* **7,** 11	Eye
3. AKṢIKAṆIKĀ, *Śā.* **7,** 11	Pupils
4. AKṢIKŪṬA, *Śā.* **7,** 11	Eye-balls
5. AKṢIVARTMA, *Śā.* **7,** 11	Eye-lids
6. ĀMĀŚAYA, *Śā.* **7,** 10	Stomach
7. AṂSA, *Vi.* **8,** 117	Shoulder-blade
8. ĀNANA, *Vi.* **8,** 117	Face
9. AṄGULA, *Sū.* **26,** 67	Finger
10. ANUṢASIRĀ, *Śā.* **7,** 13 (29,956 in number)	Capillaries
11. ARATNI, *Vi.* **8,** 107	Bones of the forearm
12. ASṚKDHARA, *Śā.* **7,** 4	Capillary
13. ĀSYA, *Vi.* **8,** 117	Mouth
14. AVATTA, *Śā.* **7,** 11	Base of the skull
15. BASTIŚĪRṢA, *Vi.* **8,** 117	Lower abdomen
16. BHAGA, *Vi.* **8,** 117	Vagina
17. CIBUKA, *Vi.* **8,** 107	Chin
18. DANTA, *Śā.* **7,** 11	Tooth
19. DANTAVEṢṬAKA, *Śā.* **7,** 11	Gums
20. DHAMANĪ, *Vi.* **5,** 9 (200 in number)	Artery
21. GALAŚUṆḌI, *Śā.* **7,** 11	Tonsils
22. GAṆḌA, *Vi.* **8,** 105	Cheek
23. GARBHĀŚAYA, *Śā.* **3,** 3	Uterus
24. GOJIHVIKĀ, *Śā.* **7,** 11	Tongue
25. GRĪVĀ, *Sū.* **20,** 8	Front of the neck
26. GUDA, *Sū.* **27,** 275	Rectal passage
27. GULPHA, *V.* **8,** 107	Ankle
28. HANU, *Vi.* **8,** 105	Jaw
29. HASTA, *Vi.* **8,** 117	Hand
30. HṚDAYA, *Sū.* **17,** 3	Heart

TABLE 11-A

Anatomical Terms—General (contd.)

Name and reference	Modern name
31. JAṄGHĀ, *Sū.* **16,** 8	Calf
32. JANTRU, *Vi.* **8,** 107	Collar-bone
33. JĀNU, *Vi.* **8,** 107	Knee
34. JARĀYU, *Śā.* **3,** 6	Womb
35. KAKṢA, *Vi.* **8,** 105	Arm-pit
36. KAṆḌARA, *Sū.* **11,** 48	Sinew
37. KARṆAPATRAKA, *Śā.* **7,** 11	Outer ear
38. KARṆAŚAṢKULIKA, *Śā.* **7,** 11	Inner ear
39. KAṬI, *Vi.* **8,** 117	Waist
40. KEŚA, *Sū.* **20,** 11	Hair
41. KEŚABHŪMI, *Sū.* **20,** 11	Scalp
42. KLOMAN, *Sū.* **17,** 93	Broncho-pneumonial tract
43. KOṢṬHĀṄGA, *Śā.* **7,** 10	Alimentary canal
44. KṚKĀṬIKĀ, *Vi.* **8,** 105	Nape of neck
45. KṢUDRĀNTRA, *Śā.* **7,** 10	Small intestines
46. KUKṢI, *Sū.* **17,** 93	Abdomen
47. KUKUNDARA, *Śā.* **7,** 11	Flanks
48. LALĀṬA, *Vi.* **8,** 105	Forehead
49. LOMAN, *Vi.* **8,** 106	Body-hair
50. LOMAKŪPA, *Śā.* **6,** 23	Skin-pore
51. MĀṂSA, *Sū.* **17,** 82	Muscles (flesh)
52. MARMA, *Sū.* **11,** 49 (107 in number)	Viscera; vital parts
53. MASTIṢKA, *Si.* **9,** 80	Cranial matter (brain)
54. MEDAS, *Sū.* **16,** 9	Adipose tissue
55. MEḌHRA, *Sū.* **27,** 275	Urethra
56. MŪRDHAN, *Sū.* **11,** 48	Cranium (skull)
57. MŪTRĀŚAYA, *Vi.* **8,** 117	Urinary bladder
58. NĀBHI, *Sū.* **17,** 93	Navel
59. NĀSĀ, *Śā.* **8,** 19	Nose
60. NĀSĀPUTA, *Śā.* **8,** 19	Nostrils

TABLE 11-A
Anatomical Terms—General (contd.)

Name and reference	Modern equivalent
61. NITAMBA, *Śā.* **7,** 11.	Buttocks
62. OṢṬHA, *Śā.* **7,** 11	Lips
63. PĀDA, *Sū.* **26,** 67	Feet
64. PĀDAHṚDAYA, *Śā.* **7,** 11	Soles of the feet
65. PĀDĀṄGULA, *Sū.* **26,** 67	Toes
66. PAKVĀŚAYA, *Sū.* **2,** 10	Colon
67. PĀṆIHṚDAYA, *Śā.* **7,** 11	Palms of the hands
68. PĀRṢṆYA, *Vi.* **8,** 107	Heel
69. PARVAN, *Sū.* **26,** 8	Joints
70. PIṆḌIKA, *Śā.* **7,** 11 (*Peśi—Śā,* **7,** 14) :—400 in number	Muscles
71. PLĪHĀ, *Sū.* **17,** 93	Spleen
72. PRAPĀṆI, *Vi.* **8,** 117	Forearm
73. PRAVĀHA, *Vi.* **8,** 117	Upper arm
74. PṚṢṬHA, *Vi.* **8,** 117	Back
75. PURĪṢĀDHĀRA, *Śā.* **7,** 10	Pelvic colon
76. RASĀYANYA, *Vi.* **5,** 8	Capillaries
77. SAKTHI, *Sū.* **20,** 8	Thigh-bone
78. SAṂVṚTĀSAṂVṚTA, *Vi.* **5,** 8	Body channel closed at one end
79. SANDHI, *Śā.* **7,** 14 (200 in number)	Joint
80. ṢAṄKHYA, *Vi.* **8,** 105	Temples
81. ṢARĪRACCHIDRA, *Vi.* **5,** 8	Body orifice
82. ŚEFA, *Vi.* **8,** 117	Penis
83. ŚIRAS, *Sū.* **17,** 3	Head
84. SIRĀ, *Vi.* **5,** 9 (700 in number)	Vein
85. ŚLEṢMABHAVA *Śā.* **7,** 11	Lungs
86. SKANDHA, *Sū.* **27,** 334	Shoulder
87. SNĀYU, *Sū.* **11,** 48 (900 in number)	Tendon; nerve
88. SPHIK, *Sū,* **21,** 15	Hip
89. ŚROṆI, *Sū.* **27,** 275	Pelvis
90. STANA, *Vi.* **8,** 117	Breast

Table 11-A

Anatomical Terms—General (contd.)

Name and reference	Modern name
91. STANAMAṆḌALA, *Śā.* **4,** 16	Areoles
92. STHŪLĀNTRA, *Śā.* **7,** 10	Large intestines
93. ŚUKRĀŚAYA, *Śā.* **2,** 19	Seminal vessel
94. SVĀNI, *Śā.* **7,** 42	Bodily orifice
95. SVEDAMUKHA, *Sū.* **7,** 42	Openings of sweat-glands
96. TĀLU *Śā.* **7,** 11	Palate
97. TAMAKA, *Ci.* **17,** 62	Bronchial tract
98. TṚKA, *Vi.* **8,** 117	Sacrum
99. UDAGDHARA, *Śā.* **7,** 4	Epidermis
100. UKHA, *Śā.* **7,** 11	Axilla
101. UPAJIHVIKĀ, *Śā.* **7,** 11	Uvula
102. ŪRU, *Sū.* **16,** 8	Thigh
103. UTSEDHA, *Vi.* **8,** 117	Neck
104. UTTARAGUDA, *Śā.* **7,** 10	Upper part of the rectal passage
105. VANKṢAṆA, *Sū.* **14,** 10	Groin
106. VAPAVAHANA, *Śā.* **7,** 10	Omentum
107. VṚKA, *Sū.* **17,** 93	Kidney
108. VṚṢAṆA, *Sū.* **14,** 10	Testicles
109. YAKṚT *Sū.* **17,** 93	Liver

TABLE 11-B

Bones in the Human Body

In the *Caraka Saṃhitā* the total number of *asthi* (a general term used by Caraka for bones, teeth, nails, hard cartilages and bone-sockets) in the human body is said to be 360, which include (*Śā.* 7, 6):

Name	Number	Modern equivalent
1. AKṢAKA	2	Collar-bones
2. AṂSA	2	Cannot be identified with any modern description
3. AṂSA-PHALAKA	2	Scapula or shoulder-blades
4. ARATNI	4	Radius and ulna of the forearm
5. BĀHUNALAKA	2	Bones of the upper arms
6. BHAGĀSTHI	1	Pubic bone or the sacrum-cum-coccyx
7. DANTA	32	Teeth
8. DANTOLŪKHALA	32	Sockets of the teeth
9. GRĪVĀSTHI	15	Bones in the column of neck
10. GULPHA	4	Ankle bones or malleoli
11. HANVASTHI	1	Lower jaw-bone
12. HANUMŪLABANDHANA	2	Attachment or binding-bones of the lower jaw
13. HASTA-MAṆIKA	2	Bones of the wrists
14. JAṄGHĀ	4	Tibia and fibula of the legs
15. JĀNU	2	Knee-caps
16. JATRU	1	Cartilage of the wind-pipe
17. KAPĀLAKA	2	Elbow-pans
18. NAKHA	20	Nails
19. NĀSIKĀ-GAṆḌA-KŪTA-LALĀṬA	1	Two nasal, two molar and two superciliary ridges of the eye-brows
20. PĀṆIPĀDĀṄGULYASTHI	60	Digital bones or phalanges of the toes and fingers (56 only)
21. PĀṆIPĀDAŚALĀKĀ	20	Metacarpal and metatarsal bones
22. PĀṆIPĀDAŚALĀKĀDHIṢṬHĀNA	4	Bases of the metacarpal and metatarsal bones
23. PĀRṢṆYASTHI	2	Heel-bones
24. PARŚUKĀ	24	Ribs
25. PṚṢṬHAGATĀSTHI	45	Backbone or the vertebral column
26. ŚANKHYA	2	Temple-bones
27. ŚIRAḤKAPĀLA	4	Cranial bones

Table 11-B

Bones in the Human Body (contd.)

Name	Number	Modern equivalent
28. ŚROṆIPHALAKA	2	Pelvic bones (*os innominatum*)
29. STHĀLAKA	24	Sockets of the ribs
30. STHĀLAKĀRBUDA	24	Tubercles of the ribs
31. TĀLUKA	2	Hard palate
32. URASAṢTHI	14	Breast-bones
33. ŪRUNALAKA	2	Thigh-bones

The total number of bones in the human body, as given in modern anatomy, is 206 only.

TABLE 12
Physiological Terms

Name and reference	Modern name
1. ĀMAGARBHA, *Sū.* **6,** 10	Embryo (egg)
2. AṆTRAPĀKA, *Ci.* **15,** 38	Digestive process
3. AṆURASA, *Sū,* **26,** 28	Latent taste
4. APARĀ, *Śā.* **6,** 23	Placenta
5. APICCHADA, *Sū.* **28,** 4	Serum
6. ĀRTAVA, *Śā.* **3,** 3	Ovum
7. AŚRU, *Ci.* **26,** 23	Lachrymal fluid
8. BĪJAGRAHAṆA, *Śā.* **2,** 23	Fertilization of the ovum
9. DHĀTU, *Sū.* **7,** 49	Major constituents of the human body
10. DṚṢṬI, *Sū.* **8,** 8	Vision
11. GARBHA, *Sū.* **7.** 39	Conception
12. GHRĀṆA, *Sū.* **8,** 8	Sense of smell
13. HṚDAYASPANDANA, *Ci.* **16,** 12	Heart-beat
14. KAPHA, *Sū.* **16,** 9	Phlegm or secretion of mucus
15. KIṬṬA, *Sū,* **28,** 3	Secretion or bodily waste products
16. LASI, *Sū,* **28,** 8	Lymphatic fluid
17. MAJJĀ, *Sū.* **13,** 17	Bone-marrow
18. MALA, *Sū.* **7.** 42	Excretions of the body
19. MASTIṢKA or MASTULAṄGA, *Sū.* **9,** 81, 90	Brain-matter
20. MŪTRA, *Sū.* **14,** 4	Urine
21. NĀBHINĀḌĪ, *Śā.* **6,** 23	Umbilical cord
22. OJAS, *Sū,* **17,** 75	Vital essence
23. PARIṆĀMĀPADYA, *Vi.* **5,** 6	Metabolic process
24. PITTA, *Sū.* **3,** 6	Bile
25. PRĀṆA, *Vi.* **5,** 6	Life-breath
26. PURĪṢA, *Sū.* **14,** 4	Faeces
27. RAJAS, *Sū.* **25,** 40	Menstrual flow
28. RASA, *Sū.* **17,** 64	Nutrient body-fluid
29. RAKTA, *Sū.* **11,** 48	Blood
30. RASANĀ, *Sū.* **8,** 8	Sense of taste

Table 12
Physiological Terms (contd.)

Name and reference	Modern name
31. RUDHIRASROTAS, *Vi.* **5,** 6	Blood-flow
32. SAṂKOCA, *Sū.* **7,** 18	Muscular contraction
33. SPARŚA, *Sū.* **8,** 8	Sense of touch
34. SROTAS, *Vi.* **5,** 8	Movement of fluids through channels in the human body
35. ŚROTRA, *Sū.* **8,** 8	Sense of hearing
37. ŚUKRA, *Vi.* **5,** 6	Semen
37. SVEDA, *Vi.* **5,** 6	Sweat
38. SVEDĀGAMA, *Sū.* **7,** 15	Perspiration
39. UDGĀRA, *Sū.* **7,** 33	Eructation
40. UDRAṆA, *Śā.* **4,** 16	Erection
41. UPADEHA, *Ci.* **26,** 23	Mucus cells
42. VĪRYA, *Sū.* **26,** 66	Potency

TABLE 13
Diseases

Name and reference	Modern name
1. ADHIJIHVĀ, *Ci.* **12,** 77	Abscess under the tongue
2. AGNIMĀNDYA, *Sū,* **20,** 17	Dyspepsia
3. AJĀTODAKA, *Ci.* **13,** 58	Dehydration of the stomach
4. AKṢIBHEDA, *Sū.* **20,** 1	Squint eye
5. AKṢIPĀKA, *Sū.* **20,** 14	Ophthalmitis
6. AKSIROGA, *Ci.* **26,** 130 (Ninety-six varieties mentioned, but neither named nor described)	Eye-affection
7. ĀLAJI, *Ci.* **12,** 88	Whitlow
8. ĀMADOṢA, *Vi.* **2,** 10	Disorders of chyme formation
9. AMLAPITTA, *Ci.* **15,** 47	Acid dyspepsia
10. ĀNĀHA, *Ci.* **28,** 29	Acute constipation
11. ANIDRĀ, *Ci.* **28,** 21	Insomnia
12. ANTARĀYĀMA, *Ci.* **28,** 43	Stiff neck
13. ANTRĀPĀNAVIDĀHA, *Sū.* **24,** 14	Intestinal inflammation
14. ANTRAVṚDDHI, *Ci.* **12,** 94	Hernia
15. APASMĀRA, *Ci.* **10,** 3 (Five types described according to etiology)	Epilepsy
16. APATASTRAKA, *Si.* **9,** 12	Convulsions with body bent like a bow (Tetanus)
17. ARDHĀVABHEDA, *Si.* **9,** 74	Hemicrania
18. ARBUDA, *Ci.* **12,** 87	Non-suppurating swelling
19. ARDITA, *Sū.* **20,** 11	Facial paralysis
20. AROCAKA, *Ci.* **26,** 124 (Six types described according to etiology)	Anorexia
21. ARŚA, *Ci.* **14,** 7 (Seven types described according to etiology)	Haemorrhoids
22. AŚMARI, *Ci.* **26,** 36 (Two types according to etiology)	Urinary calculus
23. ASTHIKṢAYA, *Sū.* **17,** 67	Atrophy of bones
24. ĀSYAVIPĀKA, *Sū.* **20,** 14	Stomatitis
25. ATAKTYĀBHINIVEŚA, *Ci.* **10,** 52	Psychic epilepsy
26. ATISĀRA, *Ci.* **19,** 4	Dysentery
(*a*) ĀMĀTISĀRA, *Ci.* **19,** 5	Dysentery with mucus discharge

TABLE 13

Diseases (contd.)

Name and reference	Modern name
(*b*) RAKTĀTISĀRA, *Ci.* **19,** 70 (Six other types described according to etiology)	Dysentery with blood discharge
27. ATISTHŪLA, *Sū.* **21,** 4	Excessive obesity
28. BHAGANDARA, *Ci.* **12,** 96	Anal fistula
29. CYŪTASANDHI, *Ci.* **25,** 68	Dislocation
30. DANTABHEDA, *Sū.* **20,** 11	Dental schism
31. DANTAMĀṂSA VIDRADHI, *Ci.* **12,** 78	Gum-boil
32. DANTAŚAITHILYA, *Sū.* **20,** 11	Loose teeth
33. DHAMANĪPRATICAYA, *Sū.* **20,** 177	Dilatation of blood vessels
34. DHANUṢṬAMBHA, *Sū.* **20,** 14	Tetanus
35. DURMA, *Sū.* **17,** 73	Neurasthenia
36. EKĀṄGAROGA, *Sū.* **20,** 11	Monoplegia
37. GALAGAṆḌA, *Ci.* **12,** 79	Tumour on the side of the neck
38. GALAGRAHA, *Sū.* **18,** 22	Acute swelling inside throat
39. GALAPĀKA, *Sū.* **20,** 14	Suppurated inflammation in the throat
40. GALAŚUṆḌIKĀ, *Sū.* **18,** 20	Tonsilitis
41. GARBHIṆĪROGA, *Śā.* **8,** 26	Diseases of pregnancy
42. GRAHAṆĪDOṢA, *Ci.* **15,** 51 (Four types described according to etiology).	Diarrhoea
43. GRANTHI, *Ci.* **12,** 81	Glandular swelling; varicocele
44. GṚDHRASI, *Sū.* **20,** 11	Sciatica
45. GUDABHRAṂŚA, *Sū.* **20,** 11	Prolapsed anus
46. GUDAPĀKA, *Sū.* **20,** 14	Proctitis of the anus
47. GULMA, *Ci.* **5,** 48 (Six types described according to etiology)	Hardening and swelling of the spleen
48. HṚDDRAVA, *Sū.* **20,** 11	Tachycardia
49. HṚDROGA, *Sū.* **17,** 6 (Five types mentioned, but not described)	Heart disease
50. HṚNMOHA, *Sū.* **20,** 11	Cardiac irregularity or heart-block
51. IKṢUVĀLIKARASAMEHA, *Ni.* **4,** 10	Glycosuria
52. JĀLAKAGARDABHA, *Ci.* **12,** 99	Fever, due to suppuration
53. JĀNUBHEDA, *Sū.* **20,** 11	Bow legs

TABLE 13
Diseases (contd.)

Name and reference	Modern name
54. JĀNUVIŚLEṢA, *Sū.* **20,** 11	Knock-knees
55. JAṬHARĀGNIVIKĀRA, *Vi.* **6,** 12 (Four types named and described according to symptoms)	Morbid appetite
56. JVARA, *Ci.* chapter 3 (Eight types described according to etiology, which includes *sannipāta* (typhoid). *Sū.* **17,** 41)	Fever
57. KAKṢĀ, *Sū.* **20,** 14	Herpes
58. KAṆḌU, *Ci.* **29,** 17	Pruritus
59. KARṆAROGA, *Ci.* **26,** 127	Diseases of the ear
(*a*) BĀDHIRYA, *Ci.* **26,** 128	Deafness
(*b*) KARṆAŚOPHA, *Ci.* **29,** 127	Inflammatory swelling inside ear
(*c*) KARṆASRĀVA, *Ci.* **26,** 127	Pus discharge from the ear
(*d*) PŪTISRAVAṆA, *Ci.* **26,** 127 (Also eight other types according to symptoms)	Suppuration of the inner the ear
60. KĀSA, *Ci.* chapter 18 (Five varieties described according to etiology)	Chronic cough
61. KEŚABHŪMISPHUṬANAM, *Sū.* **20,** 11	Fissures of the scalp
62. KHĀLITVA, *Sū.* **5,** 30	Baldness
63. KHAÑJATVA, *Sū.* **20,** 11	Lameness
64. KLAIBYA, *Ci.* **30,** 154 (Four types described according to etiology)	Impotency of the male
65. KOṬA, *Sū.* **24,** 16	Localized thickening of muscle-fibres
66. KṚMI, *Sū.* **19,** 9 (Nineteen types according to nature of the parasites)	Parasitic infections
67. KṢĪRA-DOṢA, *Ci.* **30,** 237 (Eleven types according to etiology and symptoms)	Disorder of lactation
68. KUBJATVA, *Sū.* **20,** 11	Hunch-back condition
69. KUṢṬHA, *Ci.* chapter 7	Chronic skin diseases
(*a*) ALASAKA, *Ci.* **7,** 23	Itching red papules
(*b*) CARMADALA, *Ci.* **7,** 24	Easily-bursting, itching eruptions
(*c*) CARMAKUṢṬHA, *Ci.* **7,** 21	Extensive eczema with thickened dermis
(*d*) EKAKUṢṬHA, *Ci.* **7,** 21	Localized eczema
(*e*) DADRU, *Ci.* **7,** 23	Ringworm

TABLE 13

Diseases (contd.)

Name and reference	Modern name
(*f*) KĀKANA, *Ci.* **7,** 20	Malignant growths
(*g*) KAPĀLA, *Ci.* **7,** 14	Erythema
(*h*) KILĀSA, *Ci.* **7,** 173	Fresh leprous lesions
(*i*) KIṬIMA, *Ci.* **7,** 22	Hard, rough and discoloured dermatosis
(*j*) MAṆḌALA, *Ci.* **7,** 16	Urticarial dermatosis
(*k*) PĀMĀ, *Ci.* **7,** 25	Mild leprosy
(*l*) PUṆḌARĪKA, *Ci.* **7,** 18	Ulcerated dermatosis
(*m*) ṚṢYAJIHVAKA, *Ci.* **7,** 18	Suppurated dermatosis
(*n*) ŚATARU, *Ci.* **7,** 26	Leprous sores; gangrene
(*o*) SIDHMA, *Ci.* **7,** 19	Psoriasis
(*p*) ŚVITRA, *Ci.* **7,** 173	Patchy dermatosis
(*ū*) UDUMBARA, *Ci.* **7,** 15	Acute, non-healing sores
(*r*) VICARCIKĀ, *Ci.* **7,** 26	Scabies
(*s*) VIPĀDIKĀ, *Ci.* **7,** 22	Dermatosis with fissures in the extremeties
(*t*) VIṢPHOṬAKA, *Ci.* **7,** 25	Boils
70. LALĀṬABHEDA, *Sū.* **20,** 11	Frontal headache
71. LIṄGAPĀKA, *Ci.* **30,** 168	Suppuration and sores of the penis
72. MADĀTYAYA, *Ci.* chapter 24 (Six types described according to symptoms)	Chronic alcoholism
73. MADHUMEHA, *Ni.* **4,** 44; *Ci.* **6,** 55-56	Diabetes (described as incurable)
74. MAṂSAKLEDA, *Sū.* **20,** 14	Softening and degeneration of muscular tissues
75. MANOVIKĀRA, *Sū.* **7,** 52	Psychic disorders
76. MASŪRIKĀ, *Ci.* **12,** 93	Pox
77. MEḌHRAPĀKA, *Sū.* **20,** 14	Urethritis
78. MṚTAGARBHA, *Śā.* **8,** 30	Chronic abortion
79. MŪKATVA, *Sū.* **20,** 11	Dumbness
80. MUKHAROGA, *Ci.* **26,** 119	Oral diseases
81. MŪRCCHĀ, *Sū.* **24,** 35 (Five types described according to etiology)	Fainting fits
82. MŪTRAJAṬHARA, *Si.* **9,** 30	Retention of urine causing distension of the lower abodomen

Table 13
Diseases (contd.)

Name and reference	Modern name
83. MŪTRAKṚCCHRA, *Ci.* **26**, 32 (Eight types described according to etiology)	Dysuria
84. MŪTRAKṢAYA, *Si.* **9**, 34	Uraemia
85. MŪTRĀTĪTA, *Si.* **9**, 35	Chronic difficulty and delay in micturition
86. MŪTROTSAṄGA, *Si.* **9**, 34	Blood discharge with urine
87. NĀḌĪVRAṆA, *Ci.* **25**, 56	Sinus of fistula
88. NĀḌĪROGA, *Śā.* **8**, 45 (Four types named, but not described)	Diseases of new-born babies
89. NĀSĀROGA, *Ci.* chapetr 26	Diseases of the nasal passage
(*a*) DUṢṬAPRATIŚAYA, *Ci.* **26**, 110	Pernicious rhinitis
(*b*) GHRĀṆAPĀKA, *Ci.* **26**, 115	Anosmia
(*c*) NĀSĀRŚAS, *Ci.* **14**, 6	Polypus in nose
(*d*) NĀSĀRBUDA, *Ci.* **26**, 116	Tumour in nose
(*e*) NĀṢĀSRĀVA, *Ci.* **26**, 112	Catarrh
(*f*) NĀSĀŚṚṄGĀṬAKA, *Ci.* **26**, 111	Atrophy of the sense of smell
(*g*) PINĀSA, *Ci.* **26**, 114	Acute rhinitis
(*h*) PRATINĀHA, *Ci.* **26**, 112	Obstruction in the nasal passage
(*i*) PŪYARAKTA, *Ci.* **26**, 116 (Also eleven other minor variations)	Suppuration inside nose
90. NIDRĀDHIKYA, *Sū.* **20**, 17	Hypersomnia
91. OṢA, *Sū.* **20**, 14	Heat-stroke
92. OṢṬHABHEDA, *Sū.* **20**, 11	Hare-lips
93. PĀDABHRAṂŚA, *Sū.* **20**, 11	Fallen arch or flat-foot
94. PAKṢAVADHA, *Sū.* **20**, 11	Hemiplagia
95. PĀṆḌUROGA, *Ci.* **16**, 7	Jaundice
(*a*) HALIMAKA, *Ci.* **16**, 132	Jaundice due to anaemia
(*b*) KĀMALĀ, *Ci.* **16**, 34 (Three types described according to etiology)	Jaundice due to intestinal disorders
(*c*) KUMBHAKĀMALĀ, *Ci.* **26**, 36	Malignant jaundice
96. PĀṄGULYA, *Sū.* **20**, 11	Deformed foot; club-foot
97. PĀRŚVAVIMARDA, *Sū.* **20**, 11	Painful spasms in chest with breathing difficulty

TABLE 13

Diseases (contd.)

Name and reference	Modern name
98. PĪḌAKA, *Sū.* **17,** 82	Diabetic eruptions
(*a*) ALAJĪ, *Ci.* **17,** 88	Dry gangrene
(*b*) JĀLINĪ, *Ci.* **17,** 86	Carbuncle with multiple openings
(*c*) KACCHAPIKĀ, *Sū.* **17,** 85	Carbuncle with single opening
(*d*) ŚĀRIVAKA, *Sū.* **17,** 84	Circular ulcers
(*e*) SARṢAPĪ, *Sū.* **17,** 87	Large boil, surrounded by small secondary pustules
(*f*) VIDRADHI, *Sū.* **17,** 10	Abscesses of the inner orgnas
(*g*) VINATĀ, *Sū.* **17,** 89	Moist gangrene
99. PLĪHĀROGA, *Sū.* **19,** 4 (FIve types described according to etiology)	Splenic diseases
100. PRAMEHA, *Ni.* **4,** 8 (Twenty variations including diabetes, described according to symptoms)	Urinary disorders
101. PŪTIGHRĀṆATĀ, *Sū.* **14,** 11	Halitosis
102. RĀJAYAKṢMĀ, *Ci.* **8,** 14	Pulmonary consumption
103. RAKTAGRANTHI, *Si.* **9,** 41	Tumour in the neck of the bladder
104. RAKTAPITTA, *Ci.* **4,** 11 (Seven types described according to etiology)	Haemothermia
105. RETODOṢA, *Ci.* **30,** 139 (Eight types described according to symptoms)	Seminal disorders
106. ROHIṆĪ, *Sū.* **18,** 34	Extensive and painful swelling at the base of the tongue
107. ROMĀNTIKĀ, *Ci.* **12,** 92	Small eruptions spread over the entire skin surface
108. ŚĀLUKA, *Ci.* **12,** 75	Frightful swelling and inflammation inside throat with stertorus breathing
109. ŚAṄKHYABHEDA, *Sū.* **20,** 11	Migraine
110. SARVĀṄGAROGA, *Ci.* **28,** 29	General paralysis
111. ŚIROROGA, *Sū.* **17,** 6 (Five types metioned, but not described)	Diseases of the head
112. ŚIRAḤŚOPHA, *Ci.* **12,** 75	Erysipelas of the head
113. SIRĀSTAMBHA, *Ci.* **25,** 29	Vascular thrombosis
114. ŚLĪPADA, *Ci.* **12,** 98	Elephantisis of the leg
115. ŚOṆITAKLEDA, *Sū.* **20,** 14	Pernicious anaemia

TABLE 13
Diseases (contd.)

Name and reference	Modern name
116. ŚOṢA, *Ni.* **6,** 11	Wasting diseases
117. ŚOTHA, *Ni.* **12,** 1	Oedema
118. SROTOROGA, *Vi.* **5,** 8 (Fourteen types named and described according to location)	Diseases of the body fluids and channels
119. SŪRYĀVARTA, *Si.* **9,** 79	Recurrent neuralgic pain in the had
120. SVARAKṢAYA, *Sū.* **24,** 15	Aphonia
121. ŚVĀSA. *Ci.* **17,** 46 (Five types described according to symptoms)	Asthma
122. ŚVETAMŪTRAVARCASTVA, *Sū.* **20,** 17	White and flocculent urine
123. TĀLUVIDRADHI, *Ci.* **12,** 77	Abscess of the palate
124. TAMASU, *Sū.* **20,** 11	Asthenia
125. TAMO'TIDARŚANA, *Sū.* **24,** 15	Repeated fainting fits
126. TIMIRA, *Sū.* **20,** 11	Partial loss of vision
127. TṚṢṆĀ, *Ci.* **22,** 57 (Five types described according to etiology)	Morbid thirst
128. TVAGAVADĀRAṆA, *Sū.* **20,** 14	Scaly skin
129. UDARAROGA, *Ci.* **13,** 9	Stomach troubles
(*a*) CHIDRODARA, *Ci.* **13,** 42	Perforation of the stomach or intestinal wall
(*b*) JALODARA, *Ci.* **13,** 45	Distension of the abdomen due to fluid secretion
(*c*) UDARĀVEṢṬA, *Sū.* **20,** 11	Cardiac pain originating in stomach
(*d*) UDĀVARTA, *Ci.* **26,** 6	Paralysis of the intestines
(*e*) BADDHAGUDODARA, *Ci.* **13,** 39	Peritonitis
130. UDARDA, *Sū.* **20,** 17	Urticaria
131. UNAPADĀṄKUŚAṆĪYAKAVIKĀRA, *Vi.* **3,** 4	Epidemic diseases
132. UNMĀDA, *Ci.* chapter 9 (Fifteen types described, five according to etiology and the others according to symptoms)	Insanity
133. UPAJIHVIKĀ, *Ci.* **12,** 77	Acute glossitis
134. UPAKUŚA, *Ci.* **12,** 78	Gingivitis
135. ŪRUSĀDA, *Sū.* **20,** 11	Atrophy of the thigh muscles
136. ŪRUSTAMBHA, *Ci.* chapter 27	Paralysis of the thighs

TABLE 13

Diseases (contd.)

Name and reference	Modern name
137. UTSANTRA, *Ci.* **25,** 58	Displacement of internal organs
138. VĀTABALĀSA, *Ci.* **29,** 11 (Three types named)	Rheumatism of the joints
139. VĀTAṢṬILĀ, *Si.* **9,** 36	Hard tumour in the rectal or urinary passage
140. VIḌĀLIKĀ, *Ci.* **12,** 76	Angina or quinsy
141. VIDARIKĀ, *Ci.* **12,** 89	Bubo in the groins
142. VILOMA, *Ci.* **25,** 118	Alopecia
143. VISAMAJVARA, *Ci.* **3,** 53 (Six types described according to periodicity)	Recurrent fevers
144. VISARPA, *Ci.* **21,** 29 (Seven types described according to etiology)	Acute spreading suppurations
145. VISŪCIKĀ, *Vi.* **2,** 10	Choleraic diarrhoea
146. VRADHNA, *Ci.* **12,** 94 (Five types described according to etiology)	Permanent swellings
147. VRAṆA, *Ci.* chapter 25 (Forty-four types mentioned, but not all described, including *nāḍivraṇa*)	Wounds; sores
148. VṚṢAṆAKṢEPA, *Sū.* **20,** 11	Crypto-orchitis
149. *YONI-ROGA, *Ci.* chapter 30	Diseases of the reproductive organs
(*a*) ACARAṆĀ, *Ci.* **30,** 18	Itching growth in the vagina
(*b*) ANTARMUKHĪ, *Ci.* **30,** 29	Inverted uterus
(*c*) ARAJASKA, *Ci.* **30,** 17	Scanty menstrual flow or amenorrhoea
(*d*) ATICARAṆĀ, *Ci.* **30,** 19	Chronic vaginitis
(*e*) KARṆINI, *Ci.* **30,** 27	Inflammation of the cervix
(*f*) MAHĀYONI, *Ci.* **30,** 35	Prolapsed uterus
(*g*) PARIPLUTA, *Ci.* **30,** 23	Acute vaginitis
(*h*) PRADARA, *Ci.* **30,** 205 (Four types described according to etiology and symptoms)	Menstrual disorders
(*i*) PRĀKCARAṆĀ, *Ci.* **30,** 20	Deflorative vaginitis
(*j*) PUTRAGHNI, *Ci.* **30,** 28	Chronic abortion
(*k*) RAKTAYONI, *Ci.* **30,** 16	Menorrhagia

* This term in *Caraka* also includes seminal disorders and impotency in the male, as also diseases of lactation. But these have been mentioned in the present list in their proper order.

TABLE 13

Diseases (contd.)

Name and reference	Modern name
(*l*) UDĀVARTINĪ, *Ci.* **30,** 25	Dysmenorrhoea
(*m*) UPAPLUTA, *Ci.* **30,** 21	Leucorrhoea
(*n*) VĀMINĪ, *Ci.* **30,** 32	Flow of old deposited semen

TABLE 14

Pathological Conditions and Congenital Defects

Name and reference	Modern name
1. ABHIGHĀTA, *Si.* **9,** 6 (Three types mentioned)	Accidental injuries
2. AJĪRṆA, *Ci.* **15,** 42	Indigestion
3. AKṢIŚŪLA, *Sū.* **20,** 11	Eye-ache
4. ĀLĀLAMEHA, *Ni.* **4,** 10	Discharge of pus with urine
5. ĀLASYA, *Sū.* **20,** 17	Lassitude
6. ĀMAPITTA, *Ci.* **22,** 15	Biliousness
7. AMLAKA, *Sū.* **20,** 14	Hyperacidity of stomach
8. AṂSADĀHA, *Sū.* **20,** 14	Local burning sensation
9. AṄGAGANDHA, *Sū.* **20,** 14	Body odour
10. AṄGĀVADĀRAṆA, *Sū.* **20,** 14	Local fissures on the surface of the body
11. ANTARDĀHA, *Sū.* **20,** 14	Burning sensation
12. APATANAKA, *Si.* **9,** 15	Fainting and groaning
13. ARUCI, *Ci.* **8,** 60	Distaste for food
14. ASTHIBHAṄGA, *Ci.* **25,** 68	Fractures
15. ATIDAURBALYA, *Sū.* **24,** 13	Prostration
16. ATIKṚŚA, *Sū.* **20,** 10	Extreme emaciation
17. ATISVEDA, *Sū.* **20,** 14	Excessive sweating
18. ATṚPTI, *Sū.* **20,** 14	Morbid hunger
19. CHARDI, *Ci.* **20,** 4 (Five different types described according to etiology)	Nausea; vomiting
20. CHINNAŚVĀSA, *Ci.* **17,** 54	Interrupted breathing
21. DAVATHU, *Sū.* **20,** 14	Acid eructation
22. DĀHA, *Sū.* **20,** 14	Burn
23. DAṆḌAKA, *Sū.* **20,** 11	Convulsion
24. DHŪMODGĀRA, *Sū.* **20,** 14	Gaseous eructation
25. DURMANAS, *Sū.* **17,** 73	Neurasthenia
26. DUṢṬA, *Ci.* **25,** 29	Suppurated condition
27. DVIRETAS, *Śā.* **2,** 17	Hermaphrodite condition
28. GAṆḌAMĀLĀ, *Ci.* **12,** 79	Chain of tumours around the neck

TABLE 14
Pathological Conditions and Congenital Defects (contd.)

Name and reference	Modern name
29. GRĪVĀSTAMBHA, *Sū.* **20,** 11	Rigidity of the neck muscles
30. GUDĀRTISYA, *Sū.* **20,** 11	Rectal proctalgia
31. GULPHAGRAHA, *Sū.* **20,** 11	Sprained ankle
32. HANUBHEDA, *Sū.* **20,** 11	Dislocated jaws
33. HARITATVA, *Sū.* **20,** 14	Sallow skin
34. HIKKĀ, *Ci.* **17,** 21 (Five types described according to symptoms)	Hiccup
35. HṚDAYOPALEPA, *Sū.* **20,** 17	Excessive secretion of phlegm
36. JĪVADĀNA, *Sū.* **20,** 14	Haemorrhage
37. JVARA, *Ci.* chapter 3 (Eight types described according to etiology)	Rise of body temperature
38. KAMPA, *Sū.* **24,** 15	Tremor
39. KAṆṬHALEPA, *Sū.* **20,** 17	Excessive secretion of mucus in throat
40. KARṆAKAṆḌU, *Ci.* **26,** 128	Itching inside ears
41. KARṆANĀDA, *Ci.* **26,** 128	Buzzing sound inside ears
42. KARṆAŚŪLA, *Ci.* **26,** 127	Ear-ache
43. KARṆAVIDĀHA, *Ci.* **26,** 128	Burning sensation inside ears
44. KAṢĀYĀSYATĀ, *Sū.* **20,** 11	Astringent taste in the mouth
45. KHALLI, *Ci.* **28,** 57	Neuralgic pain in the lower limbs and shoulders
46. KHAÑJATVA, *Sū.* **20,** 11	Lameness
47. KIKKISA, *Śā.* **8,** 32	Burning sensation of the vulva and cracking of local skin
48. LAVAṆĀSYATĀ, *Sū.* **24,** 14	Saline taste in the mouth
49. LOHITA-GANDHĀSYATĀ, *Sū.* **20,** 14	Metallic taste in the mouth
50. MADA, *Sū.* **24,** 27 (Seven types described according to symptoms or intoxicating agents)	Intoxication
51. MALĀDHIKYA, *Sū.* **20,** 17	Excessive secretion of faecal matter
52. MĀṂSADĀHA, *Sū.* **20,** 14	Burning sensation in the muscles
53. MUKHAMĀDHURYA, *Sū.* **20,** 17	Persistent sweet taste in the mouth
54. MUKHAŚOṢA, *Sū.* **20,** 11	Dryness of the palate and tongue
55. MUKHASRĀVA, *Sū.* **20,** 17	Excessive salivation

TABLE 14

Pathological Conditions and Congenital Defects (contd.)

Name and reference	Modern name
56. MŪTRAUKASĀDA, *Si.* **9**, 28	Dense, turbid and coloured urine
57. PĀDAŚŪLA, *Sū.* **20**, 11	Pain in the foot
58. PĀDASUPTATĀ, *Sū.* **20**, 11	Muscular cramps in the leg
59. PICCHANA, *Sū.* **17**, 4	Contusion
60. PLOṢA, *Sū.* **20**, 14	Scorching of the skin
61. PRAMĪLAKA, *Sū.* **24**, 12	Torpor of the body
62. PṚṢṬHAGRAHA, *Sū.* **20**, 11	Stiffness of the back
63. PŪTIMUKHATĀ, *Sū.* **20**, 14	Foetid smell from the mouth
64. PŪTYĀSYATĀ, *Sū.* **24**, 11	Putrid taste in the mouth
65. RAJONĀŚA, *Sū.* **20**, 11	Suppressed menstrual flow
66. ŚANAIRMEHA, *Ni.* **4**, 10	Excessively slow micturition
67. ṢAṆḌHĪ or ṢAṆḌHAYONI, *Ci.* **30**, 34	Gynandroid condition in the female
68. SĀNDRAMEHA, *Ni.* **4**, 10	Viscous urine
69. SĀNDRAPRASĀDAMEHA, *Ni.* **4**, 10	Sedimented urine
70. ŚEPHASTAMBHA, *Sū.* **20**, 11	Priapism
71. SIKATĀMEHA, *Ni.* **4**, 10	Gravel particles in urine
72. ŚIRORUK, *Sū.* **20**, 11	Headache
73. ŚOṢA, *Ni.* **6**, 11	Atrophied condition
74. ŚOTHA, *Ni.* **12**, 1	Oedema
75. SŪCĪMUKHA, *Ci.* **30**, 31	Constriction of the cervix
76. ŚUKRAMEHA, *Ni.* **4**, 10	Passing of semen with urine
77. STAMBHA, *Ci.* **28**, 20	Spastic condition
78. SUPTI, *Ci.* **27**, 16	Cramps or temporary paralysis
79. ŚVAYATHU, *Ci.* **12**, 12 (Six types described according to etiology.)	Swellings
80. ŚVETABHĀSYATĀ, *Sū.* **20**, 17	Pallor of the skin
81. TAMAḤPRAVEŚA, *Sū.* **20**, 14	Total unconsciousness
82. TANDRĀTIYOGA, *Sū.* **24**, 15	Extreme drowsiness
83. TIKTĀMLODGIRAṆA, *Sū.* **24**, 14	Bitter and acid eructation
84. TIKTĀSYATĀ, *Sū.* **20**, 11	Bitter taste in the mouth

TABLE 14

Pathological Conditions and Congenital Defects (contd.)

Name and reference	Modern name
85. TRIKĀGRAHA, *Sū.* **20,** 11	Neuralgic pain in sacral region
86. TVAGDĀHA, *Sū.* **20,** 14	Burning sensation of skin
87. UDAKAMEHA, *Ni.* **4,** 10	Excessive volume of urine
88. UDVṚTTA, *Ci.* **25,** 58	Swelling
89. UPAVEṢṬAKA, *Śā.* **8,** 26	Displacement of the foetus
90. UṢMĀDHIKYA, *Sū.* **20,** 14	Very high temperature
91. VĀGBHAṄGA, *Sū.* **20,** 11	Failing speech
92. VĀMANATVA, *Sū.* **20,** 11	Dwarfness
93. VARTMASAṂKOCA, *Sū.* **20,** 11	Retracted eyelids
94. VARTMASTAMBHA, *Sū.* **20,** 11	Rigidity of eyelids
95. VĀTABASTI, *Si.* **9,** 37	Painful retention of urine
96. VĀTIKAṢAṆḌHA, *Śā.* **2,** 21	Eunuch condition in males
97. VEPATHU, *Sū.* **20,** 11	Shivering
98. VIDĀHA, *Sū.* **10,** 95	Suppurated swelling
99. VIJYUTA, *Ci.* **25,** 70	Dislocation
100. VIKṢEPA, *Ci.* **23,** 33	Muscular rigor
101. VIṢA, *Ci.* chapter 23	Toxicosis; poisoning
(*a*) ĀMAVIṢA. *Ci.* **15,** 46	Food poisoning
(*b*) GARAVIṢA or DŪṢĪVIṢA. *Ci.* **23,** 14	Poisoning from inorganic substances
(*c*) JAṄGAMAVIṢA, *Ci.* **23,** 9	Poisoning due to bites
(*d*) STHĀVARAVIṢA. *Ci.* **23,** 11	Poisoning due to vegetable roots and bulbs
102. VIVARṆATĀ, *Sū.* **24,** 13	Depigmentation of the skin
103. YONIŚOṢA, *Ci.* **30,** 33	Dryness of the vaginal passage

TABLE 15

Therapeutical, Surgical, and Chemical Terms

Name and reference	Modern equivalent
Therapeutical & Surgical Terms	
1. AGNIKARMA, *Ci.* **25,** 101	Cauterization
2. AGNIPARIŚEKA, *Ci.* **23,** 30	Hot fomentation
3. AVAPĪḌANA, *Vi.* **6,** 16	Massage
4. BHEDANA, *Sū.* **11,** 55	Surgical incision
5. CHEDANA, *Sū.* **11,** 55	Surgical excision
6. DĀRAṆA, *Sū.* **11,** 55	Surgical rupturing
7. DHŪMAVARTI, *Sū.* **5,** 106	Medicinal cigar
8. EṢAṆA, *Sū.* **11,** 55	Surgical probing
9. KALPANA, *Śā.* **8,** 44	Use of scalpel to cut through tissues
10. KAVĀLIKĀ-BANDHA, *Ci.* **25,** 69	Cloth bandage
11. MṚTASAÑJĪVANA, *Ci.* **23,** 36	Reanimation
12. NASYA, *Sū.* **1,** 86	Medication by nasal application
13. PHALAVARTI, *Sū.* **1,** 19	Suppository
14. PICŪ, *Śā.* **8,** 19	Swab
15. PRACCHANNA, *Sū.* **11,** 55	Surgical grafting
16. PRADEHA, *Sū.* **3,** 13	Ointment or balm
17. PRATIVIṢA, *Ci.* **23,** 34	Counter poison or counter-irritant
18. RAKTAMOKṢAṆA, *Ci.* **23,** 36	Blood-letting
19. RĀŚI, *Ni.* **5,** 22	Medicinal dose
20. SAṂJÑĀSAṂSTHĀPANA, *Ci.* **23,** 36	Resuscitation
21. ŚASTRAKARMAN, *Sū.* **1,** 86	Surgical operation
22. ŚASTRAPRAṆIDĀNA, *Sū.* **11,** 55	Treatment by surgical methods
23. SĪVANA, *Sū.* **11,** 55	Surgical suturing
24. UDVEṢṬANA, *Vi.* **6,** 16	Bandaging
25. UPACĀRA, *Sū.* **9,** 8	Nursing
26. UPADHĀNA, *Ci.* **23,** 36	Scalp-incision
27. UPANĀHA, *Sū.* **1,** 96	Poultice
28. UTKṚTA, *Ci.* **25,** 29	Inoperable condition of the affected part
29. UTPĀṬANA, *Sū.* **11,** 55	Surgical removal of an affected part

TABLE 15

Therapeutical, Surgical, and Chemical Terms (contd.)

Name and reference	Modern equivalent
30. VAMANA, *Sū.* **7,** 15	Emesis
*31. BANDHANA, *Sū.* **17,** 4	Ligature
*32. BASTIKARMA, *Sū.* **1,** 86	Application of enema
33. VENIKA, *Ci.* **23,** 38	Tourniquet
34. VINNĀSANA, *Vi.* **6,** 16	Psychiatric treatment
35. VIRECANA, *Sū.* **7,** 15	Purging
36. VYĀDHANA, *Sū.* **11,** 55	Surgical puncturing
Chemical Terms	
1. AMLA, *Sū.* **6,** 11	Acid
2. ATAILA, *Ni.* **8,** 150	Oils other than vegetable oils
3. DHĀTUMALA, *Ci.* **16,** 74	Metallic ores or corroded metals
4. KṢĀRA, *Sū.* **3,** 14	Alkaline substance
5. LAVAṆA, *Ci.* **10,** 44	Salt
6. LOHA, *Ci.* **25,** 103	Metal
7. RĀGA, *Ci.* **26,** 28	Dye
8. SNEHA, *Sū.* **13,** 4	Oil or fat
9. TAILA, *Ni.* **8,** 150	Vegetable oil

* Nos. 31 and 32 have not been placed in their proper alphabetical order through mistake.

Table 16
Apparatus and Appliances
(Surgical and Physicochemical)

Name and reference	Modern name
1. ARDHADHARA. *Śā.* **8,** 44	Scalpel or knife with handle
2. ĀCAMANĪYA. *Sū.* **15,** 7	Spoon of a special shape
3. BHĀṆḌA. *Sū.* **15,** 7	Beaker or vessel
4. BHṚṄGĀRA. *Sū.* **15,** 7	Kettle of a special shape
5. CAKRA. *Sū.* **9,** 13	Wheel
6. DARVĪ. *Sū.* **15,** 7	Saucer or basin
7. DHŪMA-NETRA. *Sū.* **15,** 7	Flue
8. DṚṢADA. *Vi.* **7,** 22	Stone slab for grinding
9. KALASA. *Vi.* **7,** 22	Pitcher
10. KAṬĀ. *Sū.* **15,** 7	Saucer with handle
11. KUMBHA *Vi.* **7,** 22	Wide-mouth jar
12. KUŚIKA-BANDHA. *Ci.* **25,** 69	Splint
13. MĀNABHĀṆḌA. *Sū.* **15,** 7	Vessel for measuring volumes
14. MAṆIKA. *Sū.* **15,** 7	Shallow basin
15. MANTHANA. *Sū.* **15,** 7	Stirrer or stirring rod
16. PITARA. *Sū.* **15,** 7	Pan with handle
17. PRANĀḌĪ. *Sū.* **14,** 44	Tube for insertion into any bodily orifice
18. PUṢPANETRA. *Si.* **9,** 5	Urethral catheter
19. ŚALAKA. *Si.* **9,** 50	Metallic probe for surgery
20. ŚALYA. *Ci.* **13,** 184	Surgical instruments
21. SAPIDHANA. *Sū.* **14,** 46	Oven with lid
22. SARAVA. *Sū.* **15,** 7	Elongated bowl
23. TULĀ. *Sū.* **15,** 7	Weighing balance
24. UDAÑCANA. *Sū.* **15,** 7	Covers for vessels
25. UDKOṢṬHA. *Sū.* **15,** 7	Ladle
26. UDUKHALA. *Ni.* **7,** 22	Mortar
27. UTTARA-BASTIKA. *Sū.* **15,** 7	Douche-can
28. YANTRA. *Sū.* **5,** 86	Mechanical appliance

TABLE 17

Terms for Physicochemical Processes

Name and reference	Modern equivalent
1. ANTARDHŪMA. *Ci.* **15,** 174	Combustion in closed vessel (internal combustion)
2. AVASIÑCANA. *Vi.* **7,** 25	Moistening
3. AVISAṂPLAVANA. *Śā.* **6,** 23	Flushing in a current of liquid
4. BHĀVANA. *Vi.* **7,** 16	Impregnating with liquid
5. BHṚṢTA. *Sū.* **4,** 15	Roasting
6. DĀHANA. *Ci.* **15,** 17	Combustion
7. DRAVA. *Śā.* **8,** 41	Solution
8. GATARASA. *Vi.* **7,** 17	Evaporated residue
9. JARJARĪKARAṆA. *Ci.* **26,** 244	Trituration
10. JUṢA. *Ni.* **8,** 136	Liquid extract
11. JVALANA. *Sū.* **12,** 8/3	Ignition
12. KALKA. *Sū.* **4,** 7	Paste
13. KHEṬABHŪTA. *Śā,* **4,** 9	Coagulated
14. KHINNA. *Sū.* **27,** 254	Boiled
15. LEHA. *Vi.* **8,** 136	Tincture
16. MANTHANA. *Vi.* **5,** 22	Churning
17. MṚDUPĀKA. *Sū.* **27,** 275	Mild heating
18. NIṢKĀTHANA. *Ci.* **15,** 174	Evaporation to dryness
19. PARIPŪYANA. *Vi.* **7,** 26	Straining solids from solid-liquid mixtures
20. PĀTANA. *Ci.* **26,** 59	Distillation; precipitation
21. PHĀNṬA, *Sū.* **4,** 7	Infusion
22. PHENA. *Vi.* **7,** 23	Foam or froth
23. PHENAMĀLĀ. *Ci.* **23,** 110	Effervescence
24. PIṢṬASVEDANA. *Ci.* **1/1,** 58	Steaming of solids
25. PRASĀDA. *Ci.* **4,** 80	Clear supernatant liquid
26. SĀDHANA. *Vi.* **8,** 140	Boiling
27. SAṂYOGA. *Ni.* **5,** 22	Chemical combination
28. SĀNDRA. *Śā.* **6,** 16	Viscous
29. ŚAUCA. *Vi.* **5,** 22	Clarification of turbid liquid

TABLE 17
Terms for Physicochemical Processes (contd.)

Name and reference	Modern equivalent
30. SIÑCANA. *Śā.* **8**, 19	Addition of water
31. ŚĪTĪBHŪTA. *Vi.* **7**, 26	Cooled
32. ŚOṢAṆA. *Vi.* **7**, 22	Desiccation
33. SṚTA. *Sū.* **4**, 7	Macerated with liquid
34. SRUTA. *Ci.* **15**, 172	Percolated with water
35. SUKṢMACŪRṆA. *Vi.* **7**, 22	Impalpable powder
36. SUPŪTA. *Ci.* **1/3**, 3	Filtered liquid
37. TAILAPRAPĪḌANA. *Vi.* **7**, 25	Extraction of oily matter
38. UDGHṚTYA. *Śā.* **8**, 41	Suspension of solids in liquids
39. UPAHITA. *Vi.* **8**, 140	Intimately mixed
40. UPASAṂSKARAṆA. *Vi.* **8**, 140	Filtration
41. UPAŚOṢAṆA. *Sū.* **12**, 8/3	Evaporation
42. UPASVEDANA. *Ci.* **1/2**, 14	A special process of distillation
43. VIGATASNEHA. *Vi.* **7**, 22	Extracted from fatty or oily matter
44. VIRŪKṢAṆA. *Sū.* **5**, 4	Dehydration

Table 18
Mechanical and Physical Terms

Name and reference	Modern equivalent
1. ĀKUÑCANA. *Śā.* **7,** 16	Contraction
2. AVAGĀHANA. *Vi.* **6,** 16	Immersion
3. AVAGHAṬṬANA. *Vi.* **7,** 17	Vigorous stirring
4. AVALEPANA. *Vi.* **7,** 23	Surface coating
5. CUṢAṆA. *Ci.* **23,** 26	Suction
6. DHĀRAṆA. *Śā.* **7,** 16	Retention
7. EKĀVARTA. *Ci.* **23,** 109	Spiral
8. GAMANA. *Śā.* **7,** 16	Motion
9. GRAHAṆA. *Ni.* **5,** 22	Measurement
10. KṢODANA. *Vi.* **7,** 22	Pulverization
11. MĀRGA. *Sū.* **6,** 4	Trajectory or orbit
12. PARICCHĀYĀ. *In.* **7,** 9	Penumbra; aura
13. PARINĀHA. *Si.* **3,** 7	Circumference
14. PARYANTA. *Vi.* **8,** 117	Distance between extreme points
15. PRAPĪḌANA. *Vi.* **7,** 25	Rubbing
16. PRASĀRAṆA. *Śā.* **7,** 16	Expansion
17. PRASTARAṆA. *Vi.* **7,** 22	Spreading in layer
18. PRERAṆA. *Śā.* **7,** 16	Impulse
19. SANTĀNAGATI. *Sū.* **12,** 8/3	Continuous motion
20. SUṢIRA. *Sū.* **12,** 7	Porous
21. TATTVA. *Śā.* **1,** 55	Reflected image
22. TRIDAṆḌA. *Sū.* **1,** 46	Tripod
23. UNMARDANA. *Ni.* **6,** 16	Abrasion
24. UPĀÑGA. *Sū.* **5,** 86	Lubrication
25. VYĀMA. *Sū.* **14,** 43	Unit of length

TABLE 19
Weights and Measures
(*Ka.* 12, 87-97)

The smallest unit of weight is that of a *Dhaṃsi* (minute particle)

6 DHAṂSIS	.. 1 MARICI
6 MARICIS	.. 1 SARṢAPA (Mustard-seed)
8 SARṢAPAS	.. 1 TAṆḌULA
2 TAṆḌULAS	.. 1 DHĀNYAMAṢA
2 DHĀNYAMĀṢAS	.. 1 YAVA
4 DHĀNYAMĀṢAS	.. 1 AṆḌIKA
4 AṆḌIKAS	.. 1 MĀŚAKA or DHĀNYAKA
3 MĀṢAKAS	.. 1 ŚAṆA
2 ŚAṆAS	.. 1 DAṄKṢANA or KOLĀ or VADARA
2 DAṄKṢAṆAS	.. 1 KARṢA or SVARṆA or AKṢA or PICŪ or VIḌĀLAPĀDAKA or PĀNITALA or TIṆḌUKA or KAVALAGRAHA
2 KARṢAS	.. 1 ŚUKTI or AṢṬAMIKA
4 KARṢAS	.. 1 PALA or MUṢṬI or PRĀKUÑCANA or CATURTHIKĀ or ṢOḌAŚIKA or ĀMRA
2 PALAS	.. 1 PRASṚTA or AṢṬAMANA
4 PALAS	.. 1 AÑJALI or KUḌAVA
4 KUḌAVAS	.. 1 PRASTHA
4 PRASTHAS	.. 1 ĀḌAKA or PATRA
8 PRASTHAS	.. 1 KĀṂSA
4 KĀṂSAS	.. 1 DROṆA or CARMANA or NALVANA or KALASA or GHAṬA or UNMANA
2 DROṆAS	.. 1 ŚURPA or KUMBHA
2 ŚURPAS	.. 1 GOṆI or KHĀRI or BHĀRA
32 ŚURPAS	.. 1 VĀHA
Also 100 PALAS	.. 1 TULĀ

Later commentators have equated the *Karṣa* to 2 modern *Tolās*. This makes the *Tulā* equal to 9.33 kilograms.

TABLE 20

Terms for Physical Properties

(*Sū.* **25**, 36; **26**, 11)

Name	Modern equivalent
1. DRAVA	Liquid; melt
2. GURU	Heavy
3. KAṬHINA	Hard; solid
4. KHARA	Rough
5. LAGHU	Light
6. MANDA	Mild, weak
7. MṚDU	Soft
8. PICCHILA	Slippery
9. RŪKṢA	Dry
10. SĀNDRA	Viscid
11. SARA	Mobile, fluid
12. ŚĪTA	Cold
13. ŚLAKṢṆA	Smooth, polished
14. SNIGDHA	Oily
15. STHIRA	Firm
16. STHŪLA	Stout
17. SŪKṢMA	Fine
18. TĪKṢṆA	Sharp
19. UṢṆA	Hot
20. VIŚADA	Scattering

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TRANSLATIONS

1. **Tibetan**—date unknown; translator unknown.
2. **Persian**—earlier than 8th century A. D. This version was retranslated into Arabic by Abdulla-bin-Ali of the 9th century.
3. **Arabic**—8th or 9th century; translated from original Sanskrit by Ali-ibn-zain; quoted by Al-Biruni.
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ERRATA

Page vi,	line 27 from the top,	*for* Siences,	*read* Sciences
,, 2,	,, 19 ,, ,, ,,	,, slokas	,, *ślokas*
,, 27,	,, 5 ,, ,, ,,	*Jivaniya*	,, *Jīvanīya*
,, 30,	,, 4 ,, ,, ,,	PRASAH-VARGA	,, PRASAHA-VARGA
,, 52,	,, 17 ,, ,, ,,	(column 4) *for* ringworms	,, ringworm,
,, 88,	,, 16 ,, ,, ,,	(column 2) ,, souredmilk	,, soured milk